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JOURNAL
2010

March 2011

EDINBURGH NATURAL HISTORY SOCIETY



COUNCIL AS AT JANUARY 2011

HON PRESIDENT	Elizabeth Farquharson	
PRESIDENT	vacant	
VICE PRESIDENTS	Natalie Taylor	retires 2011
	vacant	
HONORARY SECRETARY	Kathy Buckner	
HONORARY TREASURER	David Adamson	
COUNCIL MEMBERS	Mary Clarkson	retires 2013
	Wilma Harper	retires 2013
	Malcolm Lavery	retires 2013
	Phil McInnes	retires 2011
	Eunice Smith	retires 2011
	Peter Tothill	retires 2012
JOURNAL COMMITTEE	The President (ex officio)	
	Elizabeth Farquharson, Jackie Muscott	
	Sandra Stewart, Lyn Blades	
	Tom Delaney (Editor)	
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LIBRARIAN	John Watson (Francis Dunn acting, pro tem)	
EXCURSION COMMITTEE	Lyn Blades (Chair)	
	Neville Crowther, Wilma Harper	
	Molly Woolgar, David Adamson	

The Edinburgh Natural History Society was founded in 1869 and incorporates the Edinburgh Field Naturalists and Microscopical Society, instituted in 1881. The Society was instituted for the study of natural history in all its branches and for the encouragement of public interest and concern in these matters.

An indoor talk is held on one Wednesday every month from September to April, in the Guide Hall, 33 Melville Street at 7.30pm. All are welcome. Outdoor excursions are held throughout the year. A copy of the programme for Summer 2011, and details of membership of the Society can be obtained from our website at edinburghnaturalhistorysociety.org.uk

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A FORMER PRESIDENT LOOKS FORWARD

Neville Crowther

In October, after two years of my doom-laden prophecies, I am pleased to report that the AGM went off as well as anyone could have truly expected. We elected five new and enthusiastic members of Council and were able to fill most of the required offices. Natalie Taylor, who had become Natalie Todman at the end of October, agreed to take on the duties of President. We congratulate her on both her marriage and her willingness to extend the role of her Vice-Presidency whenever the need arises.

By the time of the first new Council meeting in November, the evidence of new blood was apparent. Wilma Harper had started a Facebook site for members, and Malcolm Lavery had initiated a Yahoo News Group restricted to ENHS membership. The intention is that topical notices, events and ideas can be communicated and disseminated quickly. By the year's end, the Yahoo site had proved its value in quickly allowing reorganization of meetings and propagation of ideas, particularly among Council members.

Our website, now about five years old, will continue to host long-term information such as semi-permanent galleries plus the excursion and lecture programmes and the forms for membership and grant applications. It is, in effect, the Society's shop window, by means of which we hope new members will be attracted. Although the new facilities may leave some of our members bewildered, we can claim to have well and truly entered the 21st century in our communication efforts, more detail of which is given in the article Nats Online by Malcolm Lavery.

The year has passed with rapidity. Our lecture programme has been outstanding, our excursions have visited sites of great interest, both locally and nationally, and the level of participation and contribution by members has been excellent. Our summer holiday at Grantown-on-Spey and our two bus outings (to Scremerston and St Cyrus) were subsidized by a bequest from the late Margaret Mowat, a member of long-standing who always enjoyed the Societies' excursions. These trips were highly enjoyable and successful, and we remember her with gratitude.

Your Society aims to incorporate the variety of all our ambitions. The process of planning future lectures and excursions is continuous, and thanks are due to all who take part in the substantial work involved in organising and running these events. We welcome ideas and offers of help, and members wishing to assist should make contact via the website or, as appropriate, with any member of the Council or of the Excursion Committee (named on the winter or summer programmes) or with Phil McInnes (0131 661 5745) who organises the lecture programme.

OBITUARY

Charles P Rawcliffe

Most of the older members of the Natswill remember Charles Rawcliffe, for he had been an active and hard-working member of the Society for many years. Careful and methodical, he made an excellent Treasurer, and these qualities served him well when he went on to proof-read the *Journal*.

Charles was a first-class bird-watcher and had a special interest in the sea birds around Leith Docks where he had worked as a Customs official. Some time after retiring, he became one of the first Seasonal Rangers at Hopetoun House along with Joe Carlyle (another Nats member) and Isobel McLean. Charles compiled the bird list and Joe did the botany.

Shortly after I retired in 1981, I was invited to join the team, and for the next 20 years happily took my turn on the rotas. We shared a single salary, and Charles was meticulous in sharing out the duties. In winter we did one day a week as volunteers, maintaining paths, improving exhibits in the Rangers' 'Howf' etc. and had a lot of fun.

As if this wasn't enough, Charles later became Honorary Warden of the Scottish Wildlife Trust's Bawsinch Reserve and developed an interest in millipedes and other creepy-crawlies found under rocks and stones. He was also greatly involved with his local church.

Charles had been a widower for the last few years, and his only son lived in Canada, but his twice-yearly visits to his family gave him great pleasure. His health had declined in recent years, and we were all saddened to hear of his death on 17 January, just a week before his 95th birthday.

Mary Robertson

THE NATS ONLINE ANOTHER STEP FORWARD...

Malcolm Lavery

The Society's website <http://www.edinburghnaturalhistorysociety.org.uk/> has been established for some time now. It provides an attractive public face for our organisation, and was the first acknowledgement that an internet presence is an absolute necessity in today's world. For members, it seems to serve most often as a useful, virtual notice board, being used mainly for checking details of excursions and indoor meetings. No doubt many of us find the grid-reference links extremely helpful when looking for an excursion starting point. The site also carries an impressive gallery of photographs from excursions dating back to 2004— nearly 200 high-quality shots taken by members, and organised by Neville Crowther. They are well worth looking at, if you haven't done so previously. Many can be seen also in the centre-pages of the *Journal*.

More recently, we have added to our online facilities with a Yahoo news group and a Facebook site. Each of these gives members the opportunity to exchange information and views about a variety of natural-history topics, interesting sightings and outing arrangements. It is also possible to upload documents and digital photographs, and members can add links to other websites of interest. Many members have had experience of Yahoo news groups such as *lothianbirdnews* and *bordersbirdnews*, which gives excellent coverage of the bird scene in their respective areas. Our own sites will serve a similar function, but with a wider natural-history interest— we will have to let them develop their own direction and purpose.

The *edinburghnaturalhistorysociety* news group is private: only ENHS members can view it and add comments there, making it suitable for the expression of personal opinions by Society members. The Facebook site has been made open-access and may help raise the profile of the Society, particularly with younger people, for whom online social networking is commonplace. The groups started life in November 2010, and within a couple of months our Yahoo site had 22 members and hosted lively discussion, with more than 60 posts covering many different subjects. The Facebook site has recruited 13 members so far and is building an attractive gallery of photos uploaded by members.

Members who have not yet joined either of these interactive groups are very welcome to do so – whether just to view the reports, comments and photos, or to participate in the discussions and post messages and photos of their own. Links to the Yahoo and Facebook groups can be found on the home page of the Nats website, and members can join by following the simple instructions there. If any member has difficulty in accessing either of the sites, they should contact the author by email at malavery@talk21.com

AND LOOKING BACK

In 2008, Council agreed to allow the Natural History Museum in London to digitise some early precursors of the Society's *Journal* as part of the Biodiversity Heritage Library Project.

Two early volumes are now online :

Edinburgh Naturalists Field Club 1881-1886 at <http://www.biodiversitylibrary.org/item/26215>

Scottish Natural History Society 1898-1902 at <http://www.biodiversitylibrary.org/item/44154>.

They make very interesting reading.

EDINBURGH BIODIVERSITY EVENT

Eunice Smith

The third stage of the Edinburgh Biodiversity Action Plan was launched in the Royal Botanic Garden on 19 March 2010. The Society, as partners in the project, were invited with other partner organisations to have a display in the new John Hope Gateway on the following Saturday and Sunday. The Fungus Group of South East Scotland were invited to join us, and a suitable space and extra table were provided.

The display boards helped make best use of the corner space and sported good photographs and information about ENHS activities. The tables were covered with displays of shells, cones, Scottish gemstones, crystals, skulls and fungal specimens. A colourful poster showed the amazing variety of bumble-bees. About a dozen volunteer members formed a rota and were available to explain the items and engage the visitors in conversation about them.

In addition, one member had constructed a natural-history board game to attract the children, and this gave their parents more opportunity to look around. The adults were offered a similar chance to test their knowledge of natural history in a photo quiz which challenged them to match photographs of plants, birds etc. with the appropriate names. Visitors who subjected themselves to this test were offered a copy of *The Field-Club Flora of the Lothians* published by the Society in 1934 and shown how to use it.

All in all it was a worthwhile exercise and a good forum for the Society. The exhibition area with the various stalls attracted the interest of about 700 visitors.

AUROCHSEN

Elizabeth Farquharson

In the 1960s, Desmond Morris wrote several books on natural-history subjects that would be of interest to the general public. In one of these there was a chapter on the Heck brothers and their breeding experiments with cattle. Each Heck brother had been in charge of a major German zoo, Heinz in Munich and Lutz in Berlin, and they had been considering the possibility of recreating the extinct aurochs *Bos primigenius* by selective breeding of its present nearest relatives, domestic cattle, to remove the layers of domestication. Fortunately they had the full support of the German government. Their first task was to collect all available information about the aurochs. Although it is thought that the aurochs became extinct in Britain during the Iron Age, the last surviving animal in Europe died in Poland in 1627 in the forest of Jaktorow, a royal hunting preserve, where the animal had protected status, and where there is now a memorial stone. Descriptions of the animal were found in old manuscripts, which gave details of height, weight, colouring and temperament. It was large, more than 6 feet tall at the shoulder, a swift runner, very aggressive and dangerous. The bulls had dark coats: the cows and the calves were a lighter, reddish brown. The muzzles were white, and the horns were lyre shaped. There are good cave paintings in France, as at Lascaux, and so it is thought the beasts were of importance in the lives of the cave-dwellers, either as a source of food or as a dangerous animal in their environment.



To implement their plans, the Heck brothers had to find among current-day herds beasts from which they could breed that showed some of the characteristics of the aurochs. Lutz worked mainly with French and Spanish animals, including those from the semi-wild herds in the Camargue. Heinz used a wider range including Hungarian Grey, German Friesian and Scottish Highland cattle. In the surprisingly short time of about six generations, they were beginning to get encouraging results and before long were producing beasts that were almost identical in appearance to the aurochs. At the outbreak of World War II, Lutz had his cattle in nature reserves in Germany and Poland. These were all lost during the war. Heinz kept his animals in zoos and small reserves, and some of these survived the war, including those at Munich Zoo.

In August 1966, on a family caravan holiday, our route home took us by Munich, and, with half a day to spare for sightseeing, we made our way to the zoo, where we were able to see and photograph this version of the aurochs. I had largely forgotten about the subject until, early in 2010, when an article appeared in the Times, reporting that a small group of bulls and cows (nowadays they are known as Heck cattle) had been imported to a rare-breeds farm in Devon. The beasts had come from Oostvaardersplassen Reserve in the Netherlands, where over 600 roam free. There are other herds at three reserves in Germany, and about 100 are registered in France.*

It was inevitable that, the attempt to recreate an extinct species would lead to controversy, and latter-day scientists could not agree whether domestic cattle were direct descendants of the aurochs. The brothers had produced cattle with the right colouring, the correct shape of horns, the difficult temperament and the hard hooves, which had been lost through domestication. The only factor that did not tally was size, the Heck bulls being smaller than the aurochs. Could the beasts really be considered as genuine aurochs?

Research at Dublin University and to a lesser extent at Oxford into the origins of domestic cattle has found that the records kept by the Heck brothers are not as good as one would like. It was expected that DNA analysis would solve some of the problems, but more questions have arisen than answers. However, the research** does show that the aurochs is not the main ancestor of our present-day cattle, and we may have to wait a while yet, therefore, before we know if there any true descendants of this splendid, iconic animal.

Footnotes

* Also early in 2010, the *Daily Telegraph* reported that, in Italy, at the Consortium for Experimental Biotechnology, scientists claimed to have analysed DNA from preserved auroch bone material and created a rough map of its genome that should allow the breeding of animals nearly identical to aurochs. In what appears to be a re-run of the Heck work, modern breeds most closely resembling *Bos primigenius*, such as Highland cattle from Scotland, a native breed from Spain and the white Maremma from Italy, are being bred with each other. Apparently, a similar project is based at the University of Wageningen in the Netherlands. It will be interesting to see what transpires from these new crosses.

**It is reported that mitochondrial DNA analysis indicates a Near-Eastern neolithic origin for domestic cattle and no trace of domestication of European aurochs. crosses.

Editor

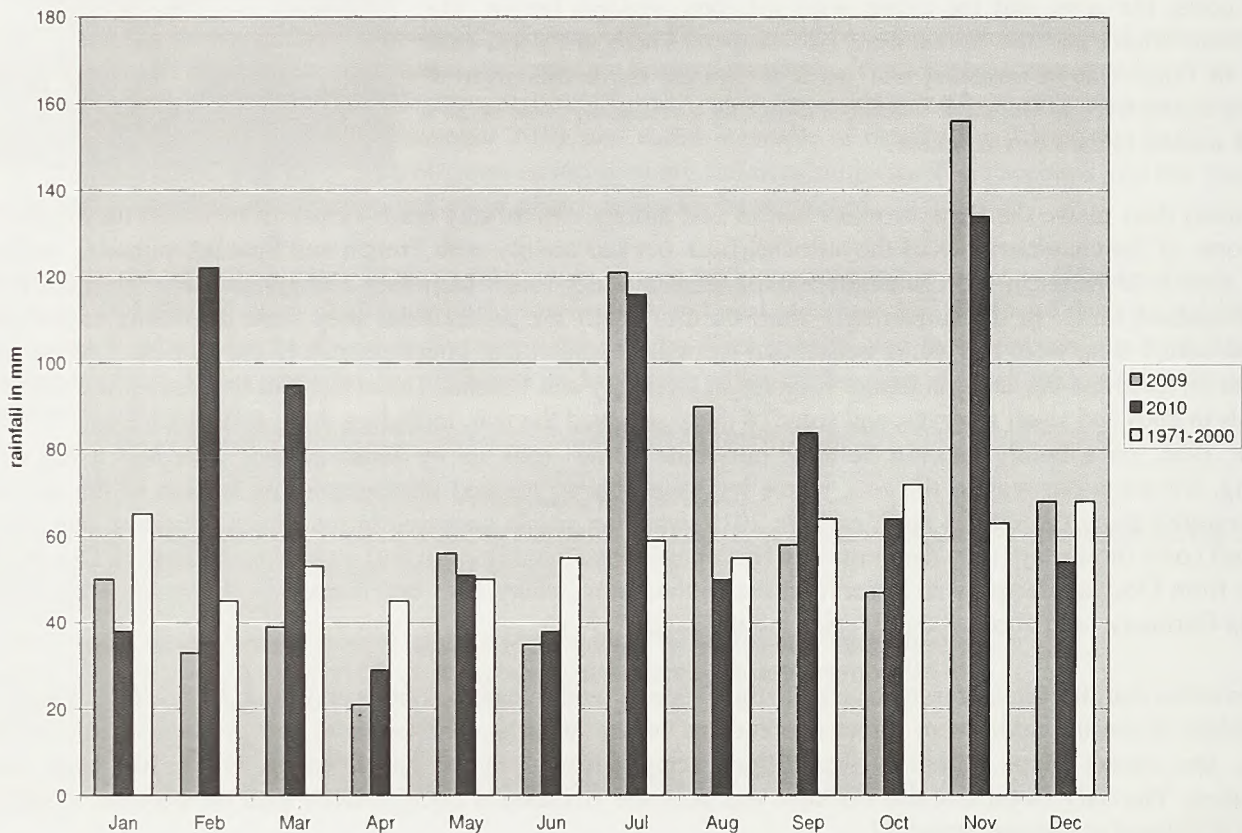
RAINFALL IN CORSTORPHINE IN 2010:
A WET YEAR WITH A STING IN ITS TAIL

Munro Dunn

Despite several months with large rainfall deficits, substantial excesses in February, March, July and November resulted in a total rainfall of 875mm, 26% above the long-term average of 694mm. Over the 45 year duration of these readings, there have been only five years with higher totals. The excess was fairly evenly distributed over the seasons.

COMPARISON OF RAINFALL IN 2009 AND 2010 WITH THE AVERAGE FOR 1971-2000 (in mm)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
2009	50	33	39	21	56	35	121	90	58	47	156	68	774
2010	38	122	95	29	51	38	116	50	84	64	134	54	875
1971-2000	65	45	53	45	50	55	59	55	64	72	63	68	694



The two wettest 24-hour periods ran consecutively, with 33mm on 29 March and 35mm on 30 March. Also notable, and also occurring in what is normally a relatively dry month, were three consecutive days, 24-26 February, which each had a little over 25mm.

The longest run without a dry day was the 14-day period 1-14 November. At the other extreme, the longest dry period was from 1-18 March.

Yet again, as so often in recent years, the excess of rain was primarily the result of heavier, not more frequent, falls. There were 205 days with significant rainfall, above the average of 183days, but only by 11%.

As for precipitation, the year ended with a December count well within the normal range. That, however, was far from true of temperature records for the country as a whole. This was the coldest December in a record going back 110 years. It was also the second coldest month of any over the same period. No doubt if figures were available for Edinburgh they would tell the same story. As I write in January, a sunny 6 degrees feels like spring in comparison.

MAMMAL IDENTIFICATION

Malcolm Lavery

There are 37 land mammals in Britain, but many are seldom seen due to their elusive nature and nocturnal habits. They can therefore fall below the radar of those with an interest in natural history, and their existence is at times almost forgotten amidst the more obvious and observable birds, plants and other life-forms.

I certainly felt that knowledge of mammals was a major gap in my own understanding of the natural world and for this reason signed up for the Basic Mammal Identification course run by the Mammal Society at the Kindrogan Field Studies Centre in July 2010.

I had a good introduction on arrival – a Red Squirrel scampered across the lawn as I carried my bag to reception, and as I walked to the classroom for the first session, another came within a few yards of me. John Haddow, our course tutor, was in the classroom, unpacking an enormous trunkful of mammal skins, skulls, track moulds, well preserved scats and sundry other animal evidence, which we were to become very familiar with over the duration of the course.

After a short overview of terrestrial mammals found in Britain, we went outside for an introduction to Longworth trapping.. These humane live traps are relatively easy to use and were baited with a mixture of porridge oats, dried mealworms and cat food – something for every taste. We lined them with bedding material for the comfort of potential captives, and set them in a variety of places around the grounds of Kindrogan House. Our main target species were small rodents and insectivores – mice, voles and shrews: the course gave us experience of catching and safely handling them and also of collecting basic survey data.

We set out our first traps in the early evening and arranged a selection of bait on trays of smooth, damp sand, in the hope that we would detect any passing mammal by its tracks. Just before dusk we inspected the traps so as not to risk leaving any animal inside for too long and were pleasantly surprised to find that, out of a couple of dozen traps, a few were already sprung. We released the incumbents – a couple of Wood Mice and a Bank Vole with its characteristic reddish fur, which shot off at high speed into the undergrowth.

Inspection of the traps the following morning showed several with sprung doors, and, after watching John demonstrate the correct handling procedure, I made my first attempt, emptying the Woodmouse I had caught into a large clear plastic bag, and cautiously cornering it before working my fingers along its back to get a good scruff-of-the-neck hold between finger and thumb. These cute little creatures can and do bite if insecurely handled. We sexed and weighed the animals we caught, noting any peculiarities of condition, then safely released them. In all we caught 28 mammals over the weekend, the majority of which were Woodmice, but with a good number of Bank Voles and a single Common Shrew.

A day out in the hills surrounding Kindrogan on Saturday brought sightings of Fallow Deer, much darker than the typical spotted variety often seen in field guides. In the distance, a herd of about 30 Red Deer was grazing on the hillside, and a solitary Roe, fox-red in its summer colour, browsed in a meadow in the river valley. The heart-shaped white rump patch showed it to be a female.

We found fresh Otter spraints, with their characteristic sweet jasmine-tea smell, on rocks by the River Ardle. Fox scats were common on the forest tracks. Occasionally we came across the dark, coiled scat of the Pine Marten; it has its own aroma, said by some to resemble that of Parma Violets!

We had plenty of time in the classroom to study owl pellets under the microscope and to attempt to identify their contents. Skulls and jaws provide the best evidence of the creatures the owls have eaten: for example red-tipped teeth help to identify shrews.

The course finished with an optional assessment, which brought back memories of exam days at school, but I had the pleasant experience of receiving a 'pass' certificate through the post a few days later. All in all, this was a very worthwhile course. Kindrogan is a lovely, tranquil place, well worth attending just for the experience of being there.

SOME PLANT NAME CHANGES

Jackie Muscott

The third edition of Stace’s ‘New Flora of the British Isles’ has a number of changes in the scientific names of plants, and I thought it might be useful to list some of the commonest. The complete list appears in the Botanical Society of the British Isles Newsletter no 115, September 2010.

The scientific names of plants (and other living things) reflect their relationships with each other. The most closely related are grouped into the same **genus**, and the **genera** in turn are grouped into **families**. Plants in the same genus have the same first (**genus**) name and individual second (**species**) names, so changes of genus affect the scientific name, changes at the family level don’t, but may alter the groupings in a flora.

In the past, plants have been classified according to their physical properties, particularly those of their flowers and fruits. More recently, however, molecular studies have cast new light on these groupings, confirming many but changing others.

As a consequence some plants appear to be more closely related than previously thought, and genera have been lumped together into a single genus. Examples include the Twayblades *Listera*, which molecular studies suggest are very closely related to Bird’s nest Orchids *Neottia*. Similarly the genus *Chionodoxa* has been merged with *Scilla*, *Hebe* with *Veronica*, *Lychnis* with *Silene* and so on.

Other plants appear to be less closely related than previously thought, and some genera have been split. Thus some Fescues have been moved out of the genus *Festuca* into a new genus *Schedonorus*, and the Lesser Celandine has been moved out of *Ranunculus* into *Ficaria*. In the case of the Celandine this confirms some previous thinking, for the name *Ficaria verna* is not a new name but an old one. When the Celandine was put in the *Ranunculus* genus, it kept its original genus name *Ficaria* as a species name *ficaria*, but because it was a noun, not an adjective like most species names, it did not have to agree in gender. So the endings of *Ranunculus ficaria* do not appear to match. This grammatical construction is known as a ‘noun in apposition’: the English equivalent would be something like the ‘Celandine Buttercup’.

Where species names have changed, the reasons are various– priority, the legitimacy of a name, maybe two differently named plants turn out to be the same. Several of the ‘new’ species names turn out to be old ones. Betony for instance has gone back to what Linneus called it, namely *Betonica officinalis*, and this is obviously the origin of its English name. Similarly Broad-leaved Ragwort has gone back to its Linnean name *Senecio sarracenicus*. It was introduced as a medicinal plant to treat wounds, and an alternative English name is Saracen’s Woundwort, so much more evocative than its rather mundane official name.

I’m afraid there’s only one thing that’s certain – more name-changes are in the pipeline, and so it’s a good idea to learn the official English names as well. And just bear in mind - it’s worse with the fungi!

OLD NAME	ENGLISH NAME	NEW NAME
Garden Plants		
<i>Alyssum saxatile</i>	Golden Alison	<i>Aurinia saxatilis</i>
All <i>Chionodoxa</i> species	Glory-of -the-snows	<i>Scilla</i>
<i>Fragaria x ananassa</i>	Garden Strawberry	<i>Fragaria ananassa</i>
All <i>Hebe</i> species	Hedge Veronica	<i>Veronica</i>
All <i>Lavatera</i> species	Tree Mallow	<i>Malva</i>
<i>Lycopersicon esculentum</i>	Tomato	<i>Solanum lycopersicum</i>
<i>Malus domestica</i>	Apple	<i>Malus pumila</i>
Ferns		
<i>Ceterach officinarum</i>	Rustyback Fern	<i>Asplenium ceterach</i>
<i>Phyllitis scolopendrium</i>	Hart’s tongue Fern	<i>Asplenium scolopendrium</i>
Grasses, Sedges and Rushes		
<i>Festuca arundinacea</i>	Tall Fescue	<i>Schedonorus arundinaceus</i>
<i>Festuca gigantea</i>	Giant Fescue	<i>Schedonorus giganteus</i>
<i>Festuca pratensis</i>	Meadow Fescue	<i>Schedonorus pratensis</i>
<i>Carex curta</i>	White Sedge	<i>Carex canescens</i>

<i>Carex muricata ssp.lamprocarpa</i>	Prickly Sedge	<i>Carex muricata ssp. pairae</i>
<i>Carex ovalis</i>	Oval Sedge	<i>Carex leporina</i>
<i>Carex viridula</i>	Yellow Sedges	
<i>ssp. brachyrrhyncha</i>		<i>Carex lepidocarpa</i>
<i>ssp. oedocarpa</i>		<i>Carex demissa</i>
<i>ssp. viridula</i>		<i>Carex oederi</i>
Orchids		
<i>Epipactis leptochila var.dunensis</i>	Dune Helleborine	<i>Epipactis dunensis</i>
<i>Gymnadenia conopsea ssp.borealis</i>	Fragrant Orchid	<i>Gymnadenia borealis</i>
All <i>Listera</i> species	Twayblades	<i>Neottia</i>
Other species		
<i>Chrysanthemum segetum</i>	Corn Marigold	<i>Glebionis segetum</i>
All <i>Coronopus</i> species	Swine-cresses	<i>Lepidium</i>
<i>Galium mollugo</i>	Hedge Bedstraw	<i>Galium album</i>
<i>Leontodon autumnalis</i>	Autumn Hawkbit	<i>Scorzoneroides autumnalis</i>
All <i>Lychnis</i> species	Ragged Robin etc	<i>Silene</i>
<i>Ornithogalum angustifolium</i>	Star of Bethlehem	<i>Ornithogalum umbellatum ssp. canpestre</i>
		<i>Ficaria verna</i>
<i>Ranunculus ficaria</i>	Lesser Celandine	<i>Nasturtium microphyllum</i>
<i>Rorippa microphylla</i>	Narrow-fruited Watercress	<i>Nasturtium officinale</i>
<i>Rorippa nasturtium-aquaticum</i>	Watercress	<i>Rosa spinossissima</i>
<i>Rosa pimpinellifolia</i>	Burnet Rose	<i>Senecio sarracenicus</i>
<i>Senecio fluviatilis</i>	Broad-leaved Ragwort	<i>Artemisia maritima</i>
<i>Seraphidium maritimum</i>	Sea Wormwood	<i>Betonica officinalis</i>
<i>Stachys officinalis</i>	Betony	<i>Stellaria alsine</i>
<i>Stellaria uliginosa</i>	Bog Stitchwort	

Footnote The old and new names are listed at http://www.bsbi.org.uk/Stace_2_vs_3.pdf

WINTRY SUN DOGS

Joanie McNaighton

On 13 December, the amount of snow in our front garden in Relugas Road made an extraordinary sight, unprecedented in the centre of town. It was rendered even more extraordinary by a most unusual sun, due south, low over the trees. I took a photo, and later, looking at it more closely and realising just how unusual the sun appeared, decided to post the picture on the new ENHS Yahoo forum. Sarah-Louise Allenby responded promptly, identifying the phenomenon as a sun dog, and giving this excellent description:

"... sun dogs, also known as parhelia or mock sms, appear as two bright spots at a 22° angle on either side of the sun and can look like three suns in the sky. When well developed, the sun dogs may appear delicately tinted with red on the inside and blue on the outside as in Joan's photograph. Sometimes, only one sun dog will appear, or one will be considerably brighter than the other. Often they will appear just as two bright or luminous areas on either side of the sm."

Sarah-Louise reports seeing sundogs quite often in winter, usually about an hour before sunset, including an occurrence on the railway walk at Rosewell a week after I saw mine.

A link (<http://www.atoptics.co.uk/halo/dogfm.htm>) provided by Malcolm Lavery gives much additional detail about sun dog formation, summarised below:

Plate crystals in high cirrns clouds drift down with their large hexagonal faces almost horizontal. Sm rays enter a side face and leave through another inclined 60° to the first. The two refractions deviate the ray by 22° or more, depending on the ray's initial angle of incidence. Red light is refracted less strongly than blue, and the inner, sunward, edges of sun dogs are therefore red hued. Rays passing through plate crystals in other ways form a variety of halos.

I thank Sarah-Louise and Malcolm for their contributions.

ERYTHRISM IN ADDERS

Neville Crowther

I spend a lot of time working on conservation projects at Woodhall Dean along with other SWT Convenors. We keep a close lookout for Adders during the warmer months. Some parts of the reserve are notable for numerous sightings, and these are often associated with patches of Bracken. The Adder's normal colours are pale grey with black markings in males and dark olive-brown with black markings in females. Occasionally very dark animals, usually females, are found. This is caused by a genetic condition known as **melanism**, in which the black pigment, melanin, is in excess. It is probably the most common colour variation and is found in many animal species. Another well known variation is **albinism**, where pigment is lacking. For many of us, Lewis Carroll's white rabbit, portrayed with white fur and red eyes, was our first experience of the character. Many animals living in caves exhibit albinism, having no need for protective pigments in the perpetual darkness. The Mexican neotenic (adults retain juvenile characteristics) amphibian, the Axolotl, living in subterranean lakes under the capital city, has many albinos in the population. Two less well known variations are **leucism**, where paleness distinguishes the creature from others of its kind. This is common in birds, but often goes un-noticed. In **xanthism**, yellow is the prominent colour, owing to an excess of that pigment..



In late July this year, I took time off from strimming to visit a pile of field stones known to be popular with Adders. I wobbled through a bed of nettles, trying to be quiet until I could peep into the pile of stones. I almost missed it but did eventually notice that what I thought was a dead bracken stem, was a red juvenile Adder. It was pencil thin and perhaps nine inches in length: my first **erythristic** animal, of any kind. (see the photographic pages). I struggled to drag my camera out of its pouch and snatched a few photographs before it snaked (of course) off.

I went back several times this summer, as did others, but to no avail. I searched the literature and the web and could find only one definite reference to red Adder: it was from southern. England. There was a quote from the *Carmarthen Journal*: 'Red is a legitimate colour variant for an Adder, particularly on old red sandstone soil'; unfortunately no detailed reference was given. Another quote, perhaps of only mythological or heraldic interest was: 'There is a legend of red Adders in Wales: the legendary red vipers of Mynydd y Garreg apparently struck terror, as it was their wont, tail-in-mouth, to form themselves into hoops and thus pursue human intruders!'

In erythristic birds chestnut-red replaces other forms of melanin, the best known example probably being the rare 'hepatic' phase of the female Cuckoo. The only other vertebrate showing this feature I had previously heard about were the erythristic Badgers from south-west Britain, mentioned some time ago on BBC's Spring Watch. I asked Peter Leach of Lothian Amphibian and Reptile Group if he could sound out some of his reptile-watching friends as to how common this was in Adders. Two of them replied: Martin Gaywood of SNH said it was more commonly seen in juveniles, but, confusingly, the colour 'brownish red' was mentioned. John Halesworth reported that GR Leighton early last century had described the Red Adder as a separate species. Its all still a bit of a mystery, so keep your eyes peeled.

Footnote: Albinism is frequent in plants, particularly pink-flowered plants, white Heather and white Pink Purslane being good examples. However, I saw an interesting example of an albino butterfly during the Nats excursion to Aberlady last summer. It was a female Meadow Brown, lacking orange pigmentation, which was replaced by a creamy white. For a minute I wondered what exotic species I had discovered!

Jackie Muscott

FORTH ISLAND SEABIRD COUNTS 2010

Bill Bruce

It has been a busy year, with eight days in May and June spent counting the breeding seabirds on the islands listed in the table below. Unfortunately the figures for May Isle are not available at the time of writing.

It was decided that this year there should be an attempt to count the breeding Herring and Lesser Black-backed Gulls on Inchkeith. In May a boat was hired to sail slowly round the island, as close inshore as possible. All the slopes visible from the boat were counted. The party then landed and counted the flatter parts of the island and any other areas that were not seen from the boat. The following day the count was completed by doing a walk-through count of an area west of the main track that runs north from the harbour. The figures obtained from the two counts of this control area gave a correction factor

which was then applied to correct the counts for the whole island. This adjustment would account for birds hidden in tall vegetation or buildings. The resulting totals (see Table) suggest that numbers could be slightly up on the previous count, which was carried out in 2002.

Summary

AOB/AON/AOS/AOT = Apparently occupied burrows/nests/sites/territories;

x = birds present but not counted 0 = none breeding

	Bass	C'leith	Lamb	Fidra	Inch keith	Carr Craig	Inch colm	Hay- stack	Inch- mickery*	Inch Garvie**	Totals
Fulmar (AOS)	39	113	40	234	258	0	177	0	25	210	1096
Cormorant (AON)	0	50	41	0	c75	82	0	0	0	0	248
Shag (AON)	16	207	114	204	194	9	3	0	55	0	802
Gannet (AON)	x	0	0	0	0	0	0	0	0	0	x
Eider (AON)	8+	213+	x	117+	267+	x	x	0	41	x	646
GreatB-b Gull (AON)	x	16	1	2-3	3	1?	0	0	1	0	c24
LesserB-b Gull (AON)	c1	x	x	x	c3500 AOT	5	x	15	x	14	3535
Herring Gull (AON)	x	x	x	x	c3700 AOT	35	x	25	x	134	3894
Kittiwake (AON)	440	600	133	232	402	0	103	0	0	0	1910
Razorbill	63	136	42	123	80	0	4	0	0	0	448
Guillemot	c1600	c1110	c2175	517	56	0	0	0	0	0	5458
Puffin	1-2 on land	c4800 AOB		c1150 AOB	x	0	2 onland	0	18 on land	0	5950
									*+Cow & Calves	**+Forth Bridge	

Razorbill = pairs/sites

Guillemot = birds on cliffs

Puffin = birds, unless otherwise stated

After completing the gull count, the party went round the beaches and lower slopes of Inchkeith and counted 267 Eider nests. Time did not allow the higher parts of the island to be counted, and so the actual total will be higher. The last count was in 1994, when 323 nests were counted.

A brief summary of the status of the various species as compared with previous years is given below:

- **Fulmar:** Numbers are almost identical to those of last year.
- **Cormorant:** The downward trend of the last few years continues (down by 8%).
- **Shag:** Numbers dropped by half between 2004 and 2005. Since then there has been a steady increase which has continued again this year (up 16%).
- **Greater Black-backed Gull:** Figures suggest that there are fewer nesting this year (down 13%). This is largely due to fewer being seen on Craigleith.
- **Kittiwake:** In recent years the general trend in the Firth of Forth (when May Isle is included) is that breeding numbers are decreasing. However, for the islands in the Table numbers are up by 8%.
- **Razorbill:** Breeding numbers have been dropping for the last few years, and this has continued again this year (down 1%).

- **Guillemot:** This year's figures are down on last year's, with most of the drop being on Craigleith and Bass Rock. However, with the birds crammed onto the breeding ledges, this species is notoriously difficult to count. There was perhaps a bit of over-counting last year.
- **Puffin:** We don't count this species on all islands. However the Seabird Centre's SOS Puffin project, which is trying to control Tree Mallow on Craigleith and Fidra, seems to be helping Puffin numbers to increase on these two islands.

I should like to thank the Forth Seabird Group for allowing the use of their figures.

VULCANISM

Ian McCallum

I recently wrote a review of a book on the geology of Madeira*, finishing up by saying that I was looking forward to sitting in the sun, drinking the local wine and listening to the authors explain the fascinating geology of the island. Having booked a holiday on the island, we unfortunately arrived there just after the devastating flooding and extensive mud slides of 20 February 2010. They were the result of an extreme weather event that dropped double the monthly average of rainfall in a few hours. There were at least 42 deaths and at least 100 people injured.

Professor Rodriguez, a local geologist, showed us the extent of the consequent destruction, which had caused roads and houses to be swept away and had covered the beach at Funchal with about 15-20 feet of boulders and soil. Although damage was confined to the south of the island, it is estimated that it will take about four years to make good. Nevertheless, in spite of road problems, we were able to travel over the whole island. During these excursions, the book's authors explained the volcanic development of the island, showing us dykes, sills, ash cones, lapilli (sphere-shaped droplets of molten lava ejected from a volcanic eruption, which fall to earth while still partially molten) and many other such features. Fortunately, those volcanic actions took place millions of years ago, which made for relaxing erudition.

Our next holiday that Spring was in Mallorca, and ornithology was the main interest there. However, the eruption on 14 April of the Eyjafjallajökull volcano in Iceland turned our interest once again to vulcanism. The ash cloud emanating from the eruption caused substantial disruption to air traffic across Europe and delayed us on the island for five days, which was certainly not so relaxing!

On the recent Gargunnock outing, we had a further insight into the range of volcanic effects: the party were shown ash deposits on Rhododendron leaves which were thought to be from the same ash cloud.

*A Field Guide to the Geology of Madeira by CJ Burton and JG Macdonald, Geological Society of Glasgow, 2008

WINTER IN AN EDINBURGH GARDEN

Joanie McNaughton

JANUARY

Heavy snow: another six inches in the back garden, on top of December's snowfalls, brings lots of birds. I have never seen so much snow in central Edinburgh. As it thaws, bonanza time as layer upon layer of food previously put out each day, then repeatedly covered by snow or frozen into the ice, is revealed.

Redwing and Fieldfare, perch in the trees round about but never in my garden, until now.

The Fieldfare and a female Blackbird are tussling for the same patch of seed on the ground. Then the male Blackcap appears, sits quietly on a bush, surveying his territory in proprietorial manner. He chases off a Robin, normally pretty proprietorial itself. My male Blackcap arrived just before Christmas. The last few years he's appeared a bit earlier than previously, but normally not before mid-January. No sign yet of the female. She tends to arrive a couple of weeks later. I heard my first Mistle Thrush of the year singing from the Elm trees across the road.

There are five Blackbirds now, three females and two males. Today one of the males has a full yellow bill again. Yesterday it wasn't yellow. (Of course it could be a different bird but I like to think it's the same one.) The other male's bill is half black, half yellow, perhaps last year's juvenile. He is also doing little flight jumps... the display season has clearly started.

Three species of tit have been on the feeders – Blue, Coal and Great. The male Great Tit has clearly come into full breeding plumage since last week; his feathers are bright and colourful again, and his black zipper is showing prominently. Suddenly everyone freezes....a Sparrowhawk circles above then flies on. Now the garden is quiet.

What a wonderful light. The sun shining through the grey cloud makes everything glow warmly. A Song Thrush joins the Blackbirds, and the female Blackie tries to chase it away. Doesn't work. Then a Bullfinch appears briefly. I often hear their sad, piercing whistle but don't recall seeing them in the garden. Five Wood Pigeons have arrived. I'm not so keen on them – they're more like Hoovers. I've already got Grey Hoovers, sorry Squirrels, and so I don't really want the Wood Pigeons too.

Whoopee! the Dunnock is back. I haven't seen him for a couple of weeks now: we were beginning to think the cold weather had done for him. Blackbirds tussle, four or five of them going at each other, the boss keeping everyone else off his food.

FEBRUARY

It's now the second week in February, and the Snowdrops and Aconites (the latter kindly donated by Elizabeth Farquharson from her driveway) have been in flower since end January. The male Bullfinch has been coming every day now and feeding on some new food we put out. The first couple of weeks he was taking Insect Suet Treats but last week I put out Fruit Suet Treats, and he has been on that more than the other. Sadly I've only seen a female once. Not to say she's not here often, just not when I am looking.



Snowdrop
Galanthus nivalis

The other day, Alastair asked, 'What's that on the feeder?' A Long-tailed Tit, which he had never seen before. A lifer for him! I was just as excited: I had seen and heard them all around the back gardens between Relugas and St Alban's Roads over the last few years but never in ours. Two (and one day we had three) appear every day now. Today, we watched one picking off bits of a label still stuck on an old clothes pole. Nest-building?

Driving through the Meadows to work the other morning (10th), I saw about 100 Common Gulls doing their trampling-on-the-spot thing; I'm told it encourages the worms to the surface (they think it's rain). The next day, sitting in a traffic queue, looking at the crocuses already poking their heads up, I suddenly noticed about 50 Redwings feeding on the grass on either side of Melville Drive.

I've just been out replenishing the feeders and have found a Seven-spot Ladybird crawling across the kitchen worktop. It must have fallen off a feeder while I was filling it. It was drowsy; no wonder – not much above freezing today.

Since the beginning of the year, in fact since last Autumn, I have been noticing masses of Jackdaws, commuting from Holyrood Park/Duddingston Loch area towards Blackford Hill/Pond in the morning and back again in the evening. Quite a sight. Wave upon wave of them, using Relugas Road as a flight path. I haven't been able to count them yet, but there must be at least 100. I'll set myself up one evening on the front doorstep and count.

Sunday 21st February, and a cracking sunny day, but the ground is still frozen solid (-5°C last night) and covered in frost. The back of the house is north-facing, and the back garden won't get any sun until the clocks change again.

Plenty of birdsong now. I heard my first Chaffy singing two weeks ago, all the tits are in full song, as are the Dunnock and the Greenfinches too. Talking of Greenfinches, I've been seeing a small flock of about six at the top of one of the remaining Elms. Hopefully they'll visit.

The big excitement yesterday was seeing two female Blackcaps. In the last 15 winters that they've been visiting my garden, there's normally been only one male and one female. Of course, the male hasn't departed yet: he is still here every day, but it won't be long before he heads back to his summer breeding place. The two Long-Tailed Tits are also daily visitors. They have now cleaned the label completely off the clothes pole. I must see if they are building a nest in my neighbour's garden. They seem to be buzzing around the shed there an awful lot.



MARCH

I haven't had a chance to count the Jackdaws on their daily fly-past, but the Herons have started to-ing and fro-ing along the same flight line. The Long-Tailed Tits and Bullfinches are still daily visitors; the Blackbirds still pretend to be flycatchers when I don't put out bread and ground peanuts.

Mid March has come and gone, but the Blackcaps are still appearing in the garden. In previous years, they have both disappeared by this time. Will they stay and breed? That's the burning question.

In February I mentioned the six Greenfinches on the Elm tree across the road. Not only do they still sit at the top and sing their heads off, but they also now visit the garden to feed on the black sunflower seeds. There are males and females, but they move around too quickly for me to count how many of each.

Yesterday (22nd) I saw a bumblebee, but it flew straight through without stopping, and so I have no idea what species it was. No butterflies here yet either. Lesser Celandine *Ficaria verna* (*Ranunculus ficaria*) is growing out of the pavement at my front gate and just beginning to flower.

The Song Thrush is now singing from the Elms, which is brilliant to hear. I'm not sure what it's got to sing about: although the forecast snow never came, it's pouring with rain and there's a cold wind. Sadly, we haven't seen the Bullfinches for about a week now. Perhaps it's got something to do with the seven Magpies who were displaying and cackling away in the blossom tree in a neighbour's garden.

APRIL

We all thought Spring had definitely arrived, but then the snow returned. It was pretty wet stuff though and didn't lie for long, here. Warmer weather now (12th), and the bumblebees are flying. I haven't been able to identify them, they are not sitting down much. There's not a lot flowering yet....mostly white things, including Spring Heath *Erica carnea* and Stinking Hellebore *Heleborus foetidus*. The only yellow comes from a few daffs just opening, some late flowering Winter Jasmine, and the Lesser Celandine in the front is still flowering. There is one purply-pink plant, Red Dead-Nettle *Lamium purpureum*. Still no butterflies, although I have seen them elsewhere.

Blackbirds are now in full song. The pair of Bullfinches are not feeding in the garden any longer, but I hear them in the gardens round about. The Blackcaps too have gone. However, my Long-tailed Tits are still faithful to the Fruity Fat Treats. I think my pair of Dunnocks are nesting in the Berberis. I've heard soft song coming from it's depths, and Pickle (our cat) spends a lot of her day sitting at the foot of the bush looking wistfully up. Fortunately she doesn't attempt to climb

THE WONDERFUL WORLD OF FUNGI

Alison Murfitt

In last year's *Journal* we published a short account by Samantha Ranscombe of her experience on the Kindrogan fungus-identification course. The Society helped fund a second student in 2010, and this is her story.

Thanks to a grant from the Edinburgh Natural History Society, I was able to attend a week-long fungus- identification course at Kindrogan Field Centre in September 2010. It was wonderful to be immersed in the world of fungi with a group of people sharing the fascination of these incredible organisms. I'm grateful that I was able to attend and would like to share some of what I learnt.

During the week I glimpsed the huge diversity of fungi in Scotland and began to familiarise myself with the key features that distinguish one genus from another. We spent the mornings in the field, collecting fungi and learning their field characters: is it sticky, scaly, smelly?; does it smell of radish, honey, marzipan etc?; does it have a ring on the stipe, a volva at the base, gills, teeth, pores etc. ? Then it was back inside to go through identification keys and to look at the microscopic features. These sessions helped improve my technique of chopping and sectioning the fungi and my confidence in identification increased.

As well identifying fungi, we spent some time studying their ecology. There are three main lifestyles possible for fungi: saprotrophic (recycling organic material), parasitic and mycorrhizal. It is mycorrhizal relationships that really capture my imagination. A mycorrhizal fungus enters a plant's roots, allowing exchange of products between fungus and plant. The plant supplies products of photosynthesis, primarily carbon, while the fungus provides phosphates, other inorganic ions and water. This symbiotic relationship, it is believed, allowed plants to emerge from the water and colonise the land. Around 90% of plants have mycorrhizal relationships. Of these there are two main types: in ectomycorrhizas the mycelium goes into the plant's root and around but not into its cells. This is the relationship most trees and woody plants have. Fungi of this kind, woodland species of genera such as *Boletus*, *Amanita*, *Russula* and *Lactarius*, fruit above ground. In endomycorrhizas, however, the mycelium does penetrate the cells of the plant root. These fungi do not fruit above ground, and so we rarely see them, but they are essential to plant vitality. Most grasses, cereal crops, vegetables and herbs form this kind of relationship.



Phaeolepiota aurea

I am currently studying grassland fungi under the BTCV Natural Talent Scheme on an 18-month apprenticeship with the RBGE and National Trust for Scotland (NTS). On the Kindrogan field trips we visited a range of habitats including grasslands where I had my first experience of the great diversity of Waxcaps *Hygrocybe spp.* Since then, on my surveys of NTS properties, I have seen many more: the ancient, unimproved lawns often found on old estates such as these are a good first place to look for these fungi.

Most of the fungi we found were new and exciting to me, and we found some real rarities, including the Golden Bootleg *Phaeolepiota aurea*, a Red Data Book species, and *Limacella guttata* an uncommon *Amanita* that has no English name. Our course also found three of the most poisonous fungi in Britain: Death Cap *Amanita phalloides*, Destroying Angel *A. villoso* and Deadly Webcap *Cortinarius rubellus* and many edible varieties. With the assistance of a Danish group we provided the Kindrogan chefs with bagfuls of Chanterelles *Cantharellus cibarius* to cook for dinner.

I should like to thank the Society for their support. The course greatly expanded my knowledge of fungi, and, with the support of Roy Watling, I am continuing to learn.

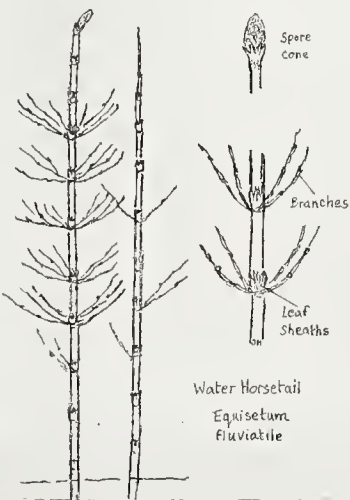
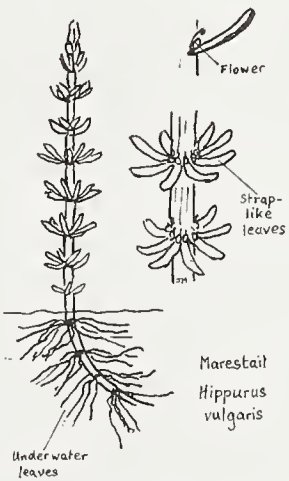
Members wishing to learn more about fungi should visit <http://sites.google.com/site/scottishfungi>

MARE’S TAILS AND HORSETAILS

Jackie Muscott

Mare’s Tail is the official name of a flowering plant *Hippuris vulgaris*, and Horsetail the official name for a group of non-flowering plants the Equisetaceae. They appear to be quite similar in structure, and in the past the name Mare’s Tail seems to have been applied to the Horsetails as well, causing confusion. According to Geoffrey Gibson (The Englishman’s Flora) these names are botanists’/apothecaries’ names, going back to the time of John Gerard, (1545-1612). *Hippuris vulgaris* was regarded as the female version of an *Equisetum* (probably *E. fluviatile*), which reproduces by spores, something not understood at the time.

Popular names for *Hippuris* included Cat’s-tails, Brushes and Witches’ Milk, while *Equisetums* were known as Fairies’ Spindles, Trowies’ Spindles and Snake Pipes. However both were also known as Paddocks’ or Puddocks’ Pipes, so they were confused in popular culture too.



Mare’s Tail is always found in water, having thread-like underwater leaves and shorter, strap-like emergent leaves in whorls round the stem. The stem is wide and hollow, and you can sometimes see water droplets on the inside. The flowers, in the leaf axial, are tiny, consisting of an ovary, an anther, or both. Horsetails prefer damp areas, but not all are found in water. Their leaves are just sheaths around the stem and the leaf-like whorls of branches. They reproduce by spores held in a terminal cone.

Probably *Equisetum fluviatile* is closest in appearance to *Hippuris*; it’s always found in water and has quite a wide hollow stem. However it sometimes has very few branches and is usually taller and slimmer than *Hippuris*.

TICK TIPS

Eunice and Denis Smith

While on the Grantown outing, we were given advice about the removal of the ticks which are always eager to fill up with the blood of the wandering naturalist. We were told that vets hold stocks of tick-removers and later found them displayed prominently in the veterinary surgery in Inverness. The pocket-size pack cost under £5. To date it has been used once in an attempt to remove a very small tick.

If you have to remove a tick, you are advised to retain it in case you fall ill and it is required for later analysis.

The Macaulay Land Use Research Institute in Aberdeen is undertaking research into *Lyme borrelia* exposure in Scotland. If you have been diagnosed with Lyme's Disease in the last five years and know where you picked up the tick, your help would be appreciated. A questionnaire is available at: macaulay.ac.uk/lyme/onlineform.php



EXCURSIONS 2010

DATE	VENUE	LEADER
February		
20 Sat	Carlingnose Point	Alison Ramsey
March		
20 Sat	Gartmorn Dam	Joanie McNaughton
April		
17 Sat	Woodhall Dean	Neville Crowther
May		
1 Sat	Bilston to Roslin via Hewan Bank	Malcolm Lavery
5 Wed	Bavelaw	Molly Woolgar
8 Sat	Brock Wood,	Lesley Fairweather
15 Sat	Gargunnoch Estate	Ian McCallum & Bob Gray
22 Sat	Scremerston	Neville Crowther/JWatson
29 Sat	Forth & Clyde Canal	Joanie McNaughton
June		
2 Wed	Corstorphine Hill	Brian Moffat
9 Wed	Lauriston Castle	Eunice Smith
14- 18	Grantown on Spey	Neville Crowther
23 Wed	Uphall Station	Jackie Muscott
26 Sat	Patties Hill & North Esk Reservoir	Michael Jones
July		
3 Sat	Keltneyburn	David Darling,SWT
7 Wed	Hopetoun House	Peter Stevens,Ranger
10 Sat	St Cyrus	Lyn Blades
14 Wed	Danderhall-Millerhill	Douglas McKean
17 Sat	Linn Dean	Richard Buckland
24 Sat	Drumtassie, West Lothian(Heights)	RogerH/Jackie Muscott
31 Sat	The Hirsell,Coldstream	M.Braithwaite
August		
7 Sat	The Glen	Lyn Blades
14 Sat	Gore Glen-Arniston	Neville Crowther
21 Sat	Aberlady Bay	Bill Clunie
28 Sat	Meldons	David Adamson
September		
4 Sat	Philliphaugh	Jean Murray
11 Sat	Tetley Trail,Scotlandwell	Mary Clarkson
18 Sat	Saltoun Forest	Mike Richardson
25 Sat	Morton Lochs	Wilma Harper
October		
2 Sat	Woodhall Dean	Chris Ellis
23 Sat	Bowhill, Selkirk	Sam Ranscombe
November		
13 Sat	Deepsyke Forest	David Adamson
December		
4 Sat	Blackford Hill	Vladimir Kritsov



EXCURSIONS 2010



CARLINGNOSE POINT

20 February

Alison Ramsay

After meeting at the Battery car park in North Queensferry beneath the Forth Rail Bridge, 16 of us left to follow the Fife Coastal Path to Inverkeithing. We were extremely fortunate in enjoying a sunny day with little wind in the midst of a winter that both before and after that point was quite arctic. Initially we progressed beneath the cliffs of Carlingnose Point, an SWT reserve well known for unusual herbs of base- rich grassland, such as Agrimony *Agrimonia eupatoria*, Field Gentian *Gentianella campestris* and Bloody Cranesbill *Geranium sanguineum*.

Mary Clarkson had acquired lots of information about the fortifications here at the narrows of the Forth. Quarrying of the dolerite rock took place throughout the 19th century, most notably for the bridge piers and afterwards for the defences that protected Rosyth. A number of defensive structures on the reserve are associated with the First and Second World Wars, notably trenches, and a Second-World-War pillbox, which is a scheduled monumen

After this contribution, Mary and Jackie disappeared at the back of the party.... as normal. The rest of us became

interested in the bird-life on the estuary, where Goldeneye, Eiders, a flock of Scaup and a Great Crested Grebe were the initial attractions. The path descended into a bay with a sandy beach. Backing the bay was a woodland hanger composed largely of very old Cherry trees. As we rounded the point into the muddy inlet which leads to the ship-breaking yards of Inverkeithing, Grey Herons, and Cormorants fished, while several common waders such as Redshank and Oystercatcher were busy 'stitching' the mudflats.



Grey Heron

Teal and Pink-footed Geese were noted, as was a high-speed Peregrine. Somehow, our two missing companions turned up ahead of us, and we were all able to congregate for lunch by the Newt Pool

As the sun began to drop, most of the oldies began to retrace their steps. Half-a-dozen younger members forged on to make an instinctive circuit back to the start. As we arrived there, a lone cock Stonechat was still perched on rocks at the beach by the Battery.

Weeks afterwards, we wondered if, unlike many of its kind, it was destined to survive the cold weather to come.

Neville Crowther and Alison Ramsay

GARTMORN DAM

20 March

Joanie McNaughton

Sir John Erskine, the 6th Earl of Mar, engineered Scotland's oldest reservoir, dating from 1713. The 170 acre reservoir powered the pumps which drained his Sauchie mines and was the catalyst for Alloa's then growing industry. It sits in the heart of a 37 acre Country Park and Nature Reserve and is a Site of Special Scientific Interest, an important area for migratory wildfowl in the winter.

Fourteen of us met at the car park. Rain had been forecast but we were blessed with a dry, bright day. While waiting for everyone to gather, we had Blue Tit and Great Tit, Blackbird, Robin and Redwing.

Setting off along the path round the reservoir, we had great views of Black-headed Gull in all phases of plumage, plus Common Gull and Herring Gull.... it was good to be able to compare the three species at close quarters. There was a sizeable flock of Greylag Geese over by the island, some Canadas, with Mute Swans, Mallards, Tufted Ducks



Male Goldeneye

and Goldeneye. We also saw a number of Great-Crested Grebes, and I could hear Dabchicks 'whinnying' in the distance.

We turned away from the reservoir, climbing up through a fairly new (1990s) plantation of native trees, including Hazel, Willow, Ash, Gean or Wild Cherry and Alder. After some debate as to whether the Willow was Goat or Grey (both known generally as Sallows or Pussy Willows), we finally agreed on Grey. On the fauna side, through the trees we saw a distant Roe Deer, and along the path were Field Vole tunnels in the grass. On the ground, wherever we walked, we saw lots of spiders, all of the same (unidentified) type; an unidentified Bumblebee and a Small Tortoiseshell or Peacock butterfly. Walking through this delightful wooded area, we had Long-tailed and Coal Tits, Mistle and Song Thrush, Dunnock, Goldfinch and three of the Corvids. Sadly, we did not see the Raven I had heard on the recce a few weeks earlier. All the time, Buzzards were mewing in the background.

Also overhead I heard my first Skylark of the year, singing its heart out.... a joy to hear, heralding spring after such a long and severe winter.

We stopped for lunch at a picnic area just before the Lade. I heard a Buzzard mewing again, looked up and saw not one, not two, not three but six Buzzards circling above us! A fantastic sight.

A Bullfinch's plaintive call betrayed a very bright male sitting in a bush, with a female not far away. A Reed Bunting was seen not far off, and we had a fleeting glimpse of a Kestrel dropping down over the brow of a hill.

After lunch, as we were saying cheerio to Munro and Frances, who had to leave early, we were attracted by a strange sound..... a Great Crested Grebe was swimming towards another with its head and neck stretched low over the water, growling as it went. When it reached its, by now obvious, mate, they continued their courtship dance, circling each other with necks upstretched and entwined. I have seen it on TV and seen it at a distance, but never so close. A truly wonderful sight. We stood and watched for quite a while, noticing at least a dozen more Great Cresteds. Several pairs of Dabchicks were visible and audible here too, and the ducks (Goldeneye and Tufted) were all displaying to each other, with a lot of head-bobbing.

Given the time of year, I hadn't expected much in the way of flora. However, we saw Honeysuckle *Lonicera Periclymenum*, Dog's Mercury *Mercurialis perennis*, Coltsfoot *Tussilago farfara*, Dock *Rumex sp* and

Celandine *Ficaria verna* (*Ranunculus ficaria*) all coming through.

The return journey along the far side of the Reservoir took us through mature woodland and past the site of Sheriffyards Colliery. Here we saw Wren and Treecreeper and, on reaching the waterside again, Moorhen and Coot. Then we reached some more open ground past the hide, with fields on the right stretching up to the still snow-covered Ochil Hills. Here we had another pair of Bullfinches, a Heron perched high up on the top of a dead tree and two pairs of Starlings. And last but definitely not least – three Sand Martins flying overhead, very fast and very determined. Just arrived, and probably desperate for somewhere to feed and rest. A spectacular end to a spectacular day.

Joanie McNaughton

WOODHALL DEAN SWT RESERVE

17 April

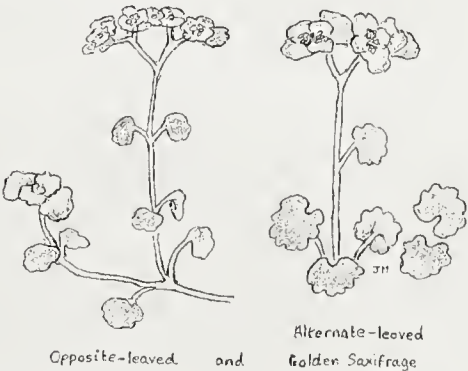
Neville Crowther

After the prolonged winter, with many events which normally herald springtime apparently delayed by several weeks, I was beginning to wonder if I would have anything 'spring-like' to remark upon during our walk around Woodhall Dean SWT Rescrve.

After severe weather and considerable damage on the reserve over the previous six months, I knew that management problems would have an immediate visual impact and could be the main topic of interest during the visit. I had spent a large number of Fridays in the last 20 years along with about ten friends, working at a variety of tasks demanded by the SWT management plans. Much of this has been organised by Lesley Fairweather, the Reserve Convenor for the last decade.

We had worked the previous day on storm- damaged trees that had been uprooted or were in danger of collapse, and I was able to set my moth trap that evening, hoping it would produce some natural history interest, if all else failed.

On



Saturday morning the Brunt Ford car park was packed, and about 23 members were waiting to go. This year is the 25th anniversary of the purchase of the reserve by the SWT, and so it was appropriate to talk of things historical. Ten thousand years ago, the waning ice sheets covering the Lammermuirs melted, creating many deep meltwater channels as the water flowed off the tops. In the millenia since then, the landscape here passed through a succession to produce climax Oak woodland. More recently, much of it had been felled to make way for farmland, but the deans were too steep to be exploited for agriculture and now remain the best examples of Sessile Oak *Quercus petraea* woodland in southeast Scotland. Many of these deans, including Woodhall, are now nature reserves.

As we set out, it was nice to see the number of woodland-floor plants in bud or in flower, including Common Violet *Viola riviniana*, Barren Strawberry *Potentilla sterilis*, Primrose *Primula vulgaris*, two Golden Saxifrages *Chrysosplenium oppositifolium* and the much rarer *C. alternifolium* Wood Sorrel *Oxalis acetosella* and Dog's Mercury *Mercurialis perennis*.

When we reached the chosen moth-trapping spot, I was astounded to find a bumper catch of about 160 moths of about 15 species hiding under the egg cartons. It was quite the best trap I've ever had and kept us occupied for 20 minutes or so, identifying and admiring. Details are given below.

Although the Oaks in the lower part of the reserve have not been coppiced for over 100 years, the multiple trunks were ample evidence of past management for the tanning and charcoal industries of previous centuries. The old packhorse bridge marks the line of the wooden railway used to extract the timber products and is now part of the walking circuit of the reserve. It led us to the long used Badger sett, with many entrances and lots of recently excavated bedding. Although Redstarts and Spotted Flycatchers had not yet returned, we were serenaded by Blackcaps, Willow Warblers and Chiffchaffs, their songs interspersed with those of the resident Robins, Wrens and Blackbirds, and even a Yellowhammer on the Whins, with its 'little bit of bread and no cheeeeeeese'

Further on we came to the spanking new Tinker's Leap Bridge, which recrosses the Woodhall burn above the wreckage of its predecessor washed down the gorge during last October's floods. How to remove the major timbers is still to be resolved.

Lunch was taken at Bob and Betty's seat, which overlooks the western end of the reserve. On resuming the walk along the return loop of the path, we soon reached two areas of grassland which had resisted our attempts to replant trees for 20 years because of the severe exposure at this high point. Three years ago, it was resolved that flower meadows would be an answer to the dilemma, and we wait in hope, meanwhile strimming the coarse vegetation in late summer each year.

Soon after, we passed with difficulty, a large landslide, which had removed a length of path, the fence and a swathe of hillside down to the burn – more work! In the most mature part of the woodland we discovered, for the second year running, the work of a misguided philanthropist, who plants scores of bunches of daffodils under the oak trees, thus denying native herbs growing space. – another half day of work for Lesley's OAP force to remove them. Who is this phantom?

Neville Crowther

A bumper catch

As we approached the moth trap, we saw several Pugs closely hugging its flat external surfaces, with their long narrow wings projecting sideways: we quickly identified them as Brindled Pugs *Eupithecia abbreviata*. When we opened the trap, we found five species of the genus *Orthosia*, the best known being Hebrew Character *O. gothica*, with its distinct black hieroglyph on each wing. The others were Common Quaker *O. cerasi*, Twin spot Quaker *O. munda*, Small Quaker *O. cruda* and Clouded Drab *O. incerta*.

Two other pretty Geometrids, also closely related, are worth mentioning: the Streamer *Anticlea derivata* and the Shoulder Stripe *A. badiata*. The interesting thing about the *Orthosia* and *Anticlea* genera is that, despite the evolutionary radiation of physical characters, the species have retained their affinities as regards habitat and timing.

The most attractive moths were Pine Beauties *Panolis flammea*, with their chestnut brocade wings, and Water Carpets *Lampropteryx suffumata*, rich chocolate-brown, patterned with a cream lattice.

Neville Crowther

ROSLIN GLEN

1 May

Malcolm Lavery

It was an unpromising start to the day. As we travelled out to Roslin, a steady drizzle came on, and the car thermometer showed 6 degrees. Yet again, a Scottish spring had failed to fully commit....

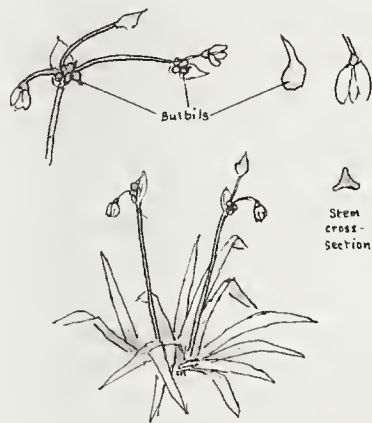
Despite this, a group of around a dozen turned up for the walk, and we enjoyed a day of improving weather and varied natural-history interest.

We started at the Bilston Glen industrial estate, site of the former colliery. Twenty five years ago, during the bitter, year-long miners' strike, the pit here was flooded and subsequently closed. The levelled bing has been rapidly colonised by Birch, and the only obvious signs of mining days are occasional chunks of coal that would keep a fire going for an evening.

Willow Warblers have followed the Birch, and their cascading calls surrounded us as we made our way towards the viaduct over Bilston Glen. A Roe Deer was disturbed from cover and sprinted off over a ridge.

Soon enough, the rain was easing and the sky lightening, and we could pay proper attention to birds and plants. Chiffchaff, Bullfinch and Song Thrush were heard. Great Wood Rush *Luzula sylvatica* in full flower was plentiful along the woodland floor. A small patch of Perforate St John's Wort *Hypericum perforatum* at an early stage in its growth was noted.

Making our way down towards the river, we saw other typical spring flowers, including Wood Anemone *Anemone nemorosa*, Common Violet *Viola riviniana*, Garlic Mustard *Alliaria petiolata*, Wood Sorrel *Oxalis acetosella*, Dog's Mercury *Mercurialis perennis* and Greater Stitchwort *Stellaria holostea*, though some of these were flowering reluctantly if at all. No butterflies or moths were present, and even bees, otherwise so prolific this year were noticeably scarce. There was an unmistakeable sense of spring on hold.



Few-flowered Leek *Allium paradoxum*
(invasive introduction)

Along the path side towards Rosslyn Castle, typical damp-habitat plants Butterbur *Petasites hybridus* and Town Hall Clock *Adoxa moschatellina* were showing. Worryingly, however, the invasive alien Few Flowered Leek *Allium paradoxum* was abundant in too many places.

Thankfully our own native Ramsons *Allium ursinum* was maintaining consistent strongholds, though the outcome of competition between these two 'wild garlics' is far from certain.

We made our way upstream, looking and listening for notable birds of this mixed woodland area. Jay,

Reaching Hewan Bank, we paused to take in the exceptional view over the North Esk river valley. A raptor that had been teasing us with fleeting views between trees came into full sight to reveal its identity as a Sparrowhawk. The guttural 'kronk' of a Raven was heard nearby.



Ramsons *Allium ursinum*
(native)

Nuthatch, Green and Great Spotted Woodpecker were keenly anticipated. We even had a faint hope of catching the rare passage migrant Wryneck, photographed in the area only days before. Sadly, none of these was recorded on the day, though the usual members of the tit family were heard everywhere, and a Tree Creeper was spotted darting between tree trunks on the opposite bank.

Plants of note along the riverside included the tree-root parasite Toothwort *Lathraea squamaria*, Opposite-leaved Golden Saxifrage *Chrysosplenium oppositifolium*, Bluebell, both native *Hyacinthoides non-scripta* and hybrids with the Spanish *Hyacinthoides hispanica*, Pendulous Sedge *Carex pendula* and Brooklime *Veronica beccabunga*.

We lunched opposite the imposing 17th century Hawthornden Castle, now a retreat for writers including local favourite Ian Rankin.

Our party split briefly in the afternoon session, one group taking the high ground above the river and the other keeping near to the water. Joanie had a close encounter with a low flying Goosander which parted her hair before splash-landing in the water. The remains of an Otter spraint on a rock, still with the lingering, sweet smell of jasmine tea reminded us that these delightful creatures are here, as on many Lothian watercourses, even though they are seldom seen. It was sad though to see that the water in the river looked at times stained and milky, evidence Neville informed us that sewage was still finding its way here.

Climbing up the steep bank to rejoin the main path, we found Bitter Vetch *Lathyrus linifolius*, Blaeberry *Vaccinium myrtillus*, Hard Fern *Blechnum spicant*, Giant Horsetail *Equisetum telmateia* and relative rarity for the Lothians, Common Cow Wheat *Melampyrum pratense*.

The more open habitat overlooked by Rosslyn Castle held several singing Blackcaps, though one or two bursts of song here tested our aural skills to the utmost, with the possibility of Garden Warbler. None of us had yet, this year, sufficiently attuned to the subtle difference in these two songs to be really sure, and so this was never fully resolved, though Garden Warblers had recently been reported in the Glen area.



Towards the end of the day, a determined posse of plant detectives located Purple Toothwort *Lathraea clandestina* on a grassy riverbank. Well satisfied, we relaxed on a footbridge over the river watching Swallows, Sand Martins and the occasional House Martin hunt for insects in a day that had turned out much better than many of us had hoped.

Malcolm Lavery

BAVELAW

5 May

Molly Woolgar

It was cloudy and cool but fortunately dry, as we set off from the car park, along the narrow path lined with silver Birch. Willow Warblers sang; Coal Tit and Blue Tit were searching for insects among the leaves.



Bavelaw Marsh is (normally) the shallow western end of Threipmuir reservoir. During our visit, however, the boundary walls and overflow were being inspected and renovated, and the water had been drained. A narrow stream was all that ran through Bavelaw Marsh and under Redford bridge. Consequently, apart from a few Mallards, there were no birds to see. A single Swallow flew by. Usually there are many Swallows and House Martins, but there were scarcely any this evening.

From the bridge, a boardwalk leads past a newly planted wild-flower meadow and through Alder and Birch woodland to a new bird hide: a most attractive site, with Scots Pine beyond.

We went up the hill, through a fine avenue of Beech trees. At the top there was a Mistle Thrush in the Pines. Turning right and crossing the stile, we came onto the open grassland, where we saw a couple of Wheatears; their nest site seemed to be in the nearby stone dyke.

After a short walk, we retraced our steps. At the marsh, we counted the Black-headed Gulls.... nowhere near as many as years ago when there was a large nesting colony here.

This was a pleasant but not particularly productive evening for the number and variety of birds seen, but perhaps next year, when the water has returned....

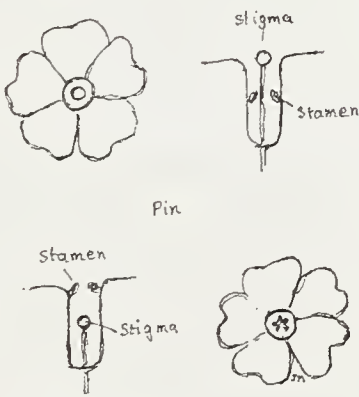
Molly Woolgar

BIRD SONG AT BROCK WOOD

8 May

Lesley Fairweather A select group met at Brock Wood, a Scottish Wildlife Trust Reserve near Spott in East Lothian, on a cold and frosty morning hoping for good bird song.

Neville's sheet of his personal impressions of bird song was invaluable,



Thrum Primrose

and Liz Johnson's contribution of 'syrup-syrup' for the Long-tailed Tit was a good addition.

A Chiffchaff and a Song Thrush were jostling for pole position at the top car- park at 9.00 a.m. and were still singing their hearts out at at midday when the walk ended. All the regular woodland birds were present, with Wrens in abundance, probably due to the presence of piles of brash from the recent tree- felling. Sue Crowther spotted a male Blackcap in pursuit of two females, accounting for the breathless and spasmodic song emanating from the bushes – it was perfect warbler habitat among the Blackthorn and Willow scrub by the Brock Burn. A Greater Spotted Woodpecker lingered in the Sycamores, and Dunnocks were present, though not singing. Forget-me-nots *Myosotis sp.* were flowering in profusion around the wet areas. A good Otter print was observed there, but the spraint we found nearby was suspect, as its smell was certainly not sweet. However, the pervasive perfume of Balsam Poplar drowned out all other odours, including that of the Wild Garlic or Ramsons *Allium ursinum* – just appearing in flower and providing a white woodland carpet.

Thrum and Pin-eyed Primroses *Primula vulgaris* (thanks Neville) were admired along with the native (rather than Spanish) Bluebells *Hyacinthoides non-scripta*. The one and only call of the Tawny Owl was heard by Frank Johnson, but the bird did not appear: the previous week, scolding Blackbirds had evicted it from its day-time roost. A perfect Blackbird's nest was found at the foot of a tree and thankfully escaped trampling by two large passing dogs.

The glades in the woodland let in enough light to enable Comfrey *Symphytum tuberosum*, Three-nerved Sandwort *Moehringia trinervia*, Celandine *Ficaria verna* (*Ranunculus ficaria*), Dog's Mercury *Mercurialis perennis*, Wood Sorrel *Oxalis acetosella*, Wood Dock *Rumex sanguineus*, Wood Speedwell *Veronica montana*, Golden Saxifrage *Chrysosplenium oppositifolium* to grow. The smell of aniseed from Sweet Cicely *Myrrhis odorata* and of roasting meat from Common Figwort *Scrophularia nodosa* all mixed with that of Wild Garlic was enough to make us think a sandwich might be in order.

The highlight of the day was still to come, however, with the investigation of Neville's moth trap, set up the previous evening. The following were found: Hebrew Character, Clouded Drab, Streamer, Engrailed, Brindled Pug and Water Carpet. As Neville identified them, the rest of us just enjoyed their forms and colours.

On the way out of the woodland, we admired a Gean *Prunus avium*, flourishing and in full blossom. It was planted to celebrate the giving of Brock Wood to SWT in 2006 by David Jamieson .

Lesley Fairweather

GARGUNNOCK ESTATE

15 May

Ian McCallum & Bob Gray

This was a combined outing of members of the Glasgow and Edinburgh Natural History Societies together with the Glasgow Tree Lovers' Society. It was attended by nine Glasgow members and 12 Edinburgh members.

The East Gate and car-park areas where we met contained, among many mature trees, the very primitive Spur-leaf *Tetracentron sinense*, a 3-needled pine considered to be a Ponderosa Pine *Pinus ponderosa* and a Coastal Redwood *Sequoia sempervirens*. The few drops of rain as the party set off made the rest of the day seem even better as the sun came out and the temperature rose. Scattered throughout the estate were purple Norway Maples *Acer platanoides* that we had been told by the estate gardener, Willie Campbell, were the cultivar, 'Goldsworth Purple'. A few seedlings of these were found. Many fine examples were noticed of introduced conifers: Noble Fir *Abies procera* and Douglas Fir *Pseudotsuga menziesii* introduced by David Douglas; Western Hemlock *Tsuga heterophylla* introduced by John Jeffrey; and Giant Red-wood *Sequoiadendron giganteum* introduced by William Lobb. On a sapling of the 5-needled Weymouth Pine *P. strobus* a specimen of White Pine Blister Rust *Cronartium ribicola* was collected. This rust, which depends upon currants *Ribes* sp. to complete its life cycle, was responsible for the devastation of this tree along with other American White and Sugar Pines in their native habitats in the 18th century. The specimen was forwarded to Forest Research whose subsequent detailed report, forwarded to Mr. Campbell, was bad news for the tree.

The ground flora included extensive areas of Snowdrops *Galanthus nivalis*, Daffodils *Narcissus* sp., Bluebells *Hyacinthoides* sp.. Many different shrubs, including Azaleas and Rhododendrons, were found growing below the tree canopy.

The party moved along the Avenue to the hexagonal Doocot, which was built around 1775 complete with rotating access ladder, and then to Gargunnock House where Mrs Campbell had provided chairs and toilet facilities. Lunch was enjoyed in the sunshine in front of the house. The Avenue itself, with its fine row of Giant Redwoods, was originally part of the stagecoach route between Stirling and Dumbarton. Birds, heard rather than seen, included Blackbird, Thrush, Chiffchaff, Willow Warbler, Cuckoo, Pheasant, Green Woodpecker, Yellowhammer and even a Peacock. Butterflies and bees were busy foraging in the sunshine.

After lunch the party split into two with one group, led by Ian, going up the Ladies' Walk and then onto Downie's Loup, while the other, led by Bob, investigated further the Walled Garden and other parts of the estate. On the Ladies' Walk the party was shown deposited on rhododendron leaves tephra ash transported from the ash cloud from the recent eruption of the Eyjafjallajökull volcano in Iceland. As the party was leaving the tree line and heading upwards, Redpolls and Crossbills were seen in the Pines. The latter were mating, which seemed a somewhat precarious activity. The Loup is a waterfall that tumbles over the Carboniferous basaltic lava flows formed about 340 million years ago. Owing to the earlier dry spell, however, the Loup itself was rather disappointing. Giant Hogweed *Heracleum mantegazzianum* was seen in the gully under the Loup.

The other group crossed the field beyond the Doocot, where, of particular interest, were a large Common Walnut *Juglans regia* and, even more exciting, an example of a Bishop Pine *Pinus muricata*, easily identified by the very sharp spines on its cone scales. Like those of other fire-climax species, these cones open only after forest fires. In nature these pines are confined to only seven Californian cliff-tops and islands. We passed by a building that was originally an inn on the stagecoach route and then stopped by a Variegated Sycamore *Acer pseudoplatanus* f. *variegatum* to admire the striking view across the Carse of Stirling to the hills of the Highland Boundary Fault beyond.

Part of the old walled garden is being used as a nursery for trees and shrubs, especially Rhododendrons, in which the gardener is particularly interested. Some of these are planted out; some are for sale. Among the most interesting was the Chinese Fir *Cunninghamia lanceolata*, the seeds of which had been brought over from Vietnam. The house garden contained a plethora of interesting trees and shrubs, with the scent of Osmanthus *Osmanthus heterophyllus* being the most memorable. The Mountain Laurel *Kalmia latifolia* is claimed to be the biggest in Scotland. The walk back to the car park yielded yet more interesting trees, chief among which were, arguably, a Yellow Dawn Redwood *Metasequoia glyptostroboides* 'Gold Rush', which arose first in Japan in 2001 before being exported to the world via the USA and a Golden Oak *Quercus robur* 'Concordia'. Thanks should be accorded to Mr and Mrs Campbell for their hospitality and to George MacDougal and David Adamson of ENHS who suggested the outing. The garden is open to visitors during the summer months, on Wednesdays 2 – 5 pm mid-April to mid-June, and on Wednesdays during September and October.

Ian McCallum

TREES AT GARGUNNOCK HOUSE

Garden

Fern-Leaved Beech	<i>Fagus sylvatica</i> 'Aspleniifolia'	Persian Ironwood	<i>Parrotia persica</i>
Chilean Firebush	<i>Embothriumcoccineum</i> 'Norquingo Valley'	Spur-Leaf	<i>Tetracentron sinense</i>
Dove Tree	<i>Davidia involucrata</i>	Silver Beech	<i>Nothofagus menziesii</i>
Deciduous Camellia	<i>Stewartia pseudocamellia</i>	Yellow Dawn Redwood	<i>M. glyptostroboides</i> 'Gold Rush'
	<i>Enkiantlus campanulatus</i>		
	<i>Osmanthus heterophyllus</i>	Golden Oak	<i>Quercus robur</i> 'Concordia'
Rose-Leaved Eucryphia	<i>Eucryphia glutinosa</i>	Snowdrop Tree	<i>Halesia monticola</i>
Japanese Umbrella Pine	<i>Sciadopitys verticillata</i>	Setschwan Rowan	<i>Sorbus setschwanensis</i>
Atlas Cedar	<i>Cedrus atlantica</i>	Gibb's Finnish Whitebeam	<i>Sorbus lybrida</i> 'Gibbsii'
	<i>Fothergilla major</i>	Snowdrop Tree	<i>H. monticola</i>
	<i>Magnolia sieboldii</i>		

Snowy Mespil
Mountain Laurel
Japanese Angelica Tree
Sweet Gum
Winged Spindle
Deciduous Camellia
Kohuhu
Chinese Fir

<i>Amelanchier lamarckii</i>
<i>Kalmia latifolia</i>
<i>Aralia elata</i>
<i>Liquidambar styraciflua</i>
<i>Euonymus alatus</i>
<i>Stewartia pseudocamellia</i>
<i>Pittosporum tenuifolium</i>
<i>Cunninghamia lanceolata</i>

South Path

Willow-Leaved Pear	<i>Pyrus salicifolia</i>
Feathery-Leaved Common Alder	<i>Alnus glutinosa</i> 'Imperialis'
Sugar Maple	<i>Acer saccharum</i>
Bhutan Pine	<i>Pinus wallichiana</i>
Weymouth Pine	<i>P. strobus</i>
Ladder-Leaf Rowan	<i>Sorbus scalaris</i>
Small-Leaved Azara	<i>Azara microphylla</i>
Japanese Black Pine	<i>Pinus thunbergii</i>
Storax/Snowbell Tree	<i>Styrax sp.</i>

Doocot

Common Walnut	<i>Juglans regia</i>
Bishop Pine	<i>Pinus muricata</i>
Oak	<i>Quercus sp.</i>
Sweet Chestnut	<i>Castanea sativa</i>

Coach House

Hornbeam	<i>Carpinus betulus</i>
Giant Sequoia	<i>Sequoiadendron giganteum</i>

View

Variegated Sycamore	<i>Acer pseudoplatanus</i> f. <i>variegatum</i>
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Walled Garden

Chinese Fir (from Vietnam)	<i>Cunninghamia lanceolata</i>
	<i>Rhododendron moulnainense</i>
Pratt's Rowan	<i>Sorbus prattii</i>

West-East Path

Sweet Chestnut	<i>Castanea sativa</i>
Western Red Cedar	<i>Thuja plicata</i>
Spindle Tree	<i>Euonymus europaeus</i>
White Poplar	<i>Populus alba</i>
Drummond's Norway Maple	<i>Acer platanoides</i> 'Drummondii'
Purple Norway Maple	<i>A. platanoides</i> 'Goldsworth Purple'
Western Hemlock	<i>Tsuga heterophylla</i>
Pillar Apple	<i>Malus tschonoskii</i>
Red Oak	<i>Quercus rubra</i>
	Seedling 'Goldsworth Purple'
Sargent's Cherry	<i>Prunus sargentii</i>
Sugar Maple	<i>Acer saccharum</i>
Yellow Dawn Redwood	<i>Metasequoia glyptostroboides</i> 'Gold Rush'

East Gate

Coastal Redwood	<i>Sequoia sempervirens</i>
Ponderosa Pine	<i>Pinus ponderosa</i>
Spindle Tree	<i>Euonymus europaeus</i>

Bob Gray

SCREMERSTON

22 May

Neville Crowther

A fine day if ever there was one. Unbroken hot sunshine, though with a delicious, cooling onshore breeze. But also the kind of day to watch out for UV radiation, especially when, like the writer, there's not much hair on top. There were 18 Nats on the bus, with another three travelling direct.

The bus took us to a stretch of coast about two kilometres east of the village of Scremerston, with fine views south to Holy Island. Much of the area had been part of the Northumberland Wildlife Trust's reserve until about four years ago when the management agreement was not renewed. The sandy beach was backed by a dune system which graduated into farmland. There were also rocky stretches, small burns and damp patches, all of which added up to an impressive range of habitats in a small area. In addition, the late spring and early summer flowers were all in bloom together, and so the botanists were to be kept busy with their lists. St. Mark's Flies *Bibio marci* were everywhere, most notably on the bus windscreen.

From the outset and, as usually happens, the party split into two groups: one, mainly botanical, searching in depth, the other forging ahead, cherry-picking noteworthy or less common specimens.

In the morning, many interesting and beautiful plants were to be found in the beach/dune area, including: Bulbous Buttercup *Ranunculus bulbosus*, Common Vetch *Vicia sativa*, Kidney Vetch *Anthyllis vulneraria*, Bloody Crane's-bill *Geranium sanguineum*, the beautiful Field Mouse-ear *Cerastium arvense* and its rampant garden cousin Snow in Summer *Cerastium tomentosum*, Thyme-leaved Sandwort *Arenaria serpyllifolia*, Yellow-rattle *Rhinanthus minor*, Creeping Cinquefoil *Potentilla reptans*, Leopard's-bane *Doronicum pardalianches*, Rough Hawkbit *Leontodon hispidus*, Meadow Oat-grass *Avenula pratensis* (*Helictotrichon pratense*) and Tall Fescue *Schedonorus arundinaceus* (*Festuca arundinacea*).

Also striking were Cowslip *Primula veris*, Bird's-foot Trefoil *Lotus corniculatus*, Purple Milk Vetch *Astragalus danicus* and small numbers of Northern Marsh Orchid *Dactylorhiza purpurella* and Twayblade *Neottia (Listera) ovata*. Lesser Celandine *Ficaria verna* (*Ranunculus ficaria*) had pretty well gone over, but still to flower were Viper's Bugloss *Echium vulgare*, Rest Harrow *Ononis repens*, Meadow Cranesbill *Geranium pratense*, Weld *Reseda luteola*, Hoary Plantain *Plantago media*, Burnet Rose *Rosa spinosissima* (*pimpinellifolia*) and in damper areas Hemlock Water Dropwort *Oenanthe crocata*.

Butterflies were numerous, especially Green-veined White *Pieris napi*, but the Small Copper *Lycaena phlaeas* and Orange Tip *Anthocharis chardomines*, were also seen, and we were most excited by a number of Wall Browns *Lasiommata megera* on the dry grassland. Unexpectedly, Cinnabar Moths *Tyria jacobaeae* were quite frequent. Two fungi of interest were St George's Mushroom, (about a month late!) and Choke *Epichloe typhina*, a parasite of grasses, probably so named because it grows like a white or yellow collar around the stalk of the grass.



Choke
Epichloe typhina
(like white paint when fresh, swollen and yellow when sporing)

A very laid-back lunch was taken at an idyllic spot: a natural amphitheatre in the marram, half way down a dune. As we looked out to sea, listening to a lazy surf, beneath our feet a dozen or more Sand Martins swooped into nest holes. No one was heard to complain about the presence of a nearby ice-cream van. Meadow Pipits and Skylarks flitted around the sand dunes, and Reed Buntings and Sedge Warblers were to be found on bushes and tall herbs. On the sea were flotillas of male Eiders - the absence of females probably being good news for breeding success, as they are likely to be on eggs. Off the reefs to the north, flocks of Sandwich Terns dived for fish.

Summoning the energy to resume after lunch, most of the party made their way across the Cocklawburn beach to the Saltpan Rocks. This rocky area is composed of 350 million years old Carboniferous limestone strata (the beds dipping seawards with some gentle folding) which are well known for the fossils they contain. We also found some narrow beds of coal out of which seeped sulphur. The party soon fell to a mixed session of rock-pool dipping and fossil-hunting, made urgent by the incoming tide.

Of particular note were the excellent fossils which were quite easy to find and identify as crinoids. This ancient life form is still represented by modern day Sea Lilies (Echinoderms, not plants) of which there are about 80 species existing, mostly in fairly deep marine waters. There are about 5,000 fossil species.

All too soon, the clock and the state of the tide dictated a return to the bus after a perfect summer's day. Our thanks to leader Neville Crowther for a superb outing.

Many members were pleased to greet Duncan Gill, an old friend and past President of the Society, who had made the journey to renew old acquaintances.

John Watson
(with contributions from Neville Crowther)

FORTH & CLYDE CANAL AND ANTONINE WALL

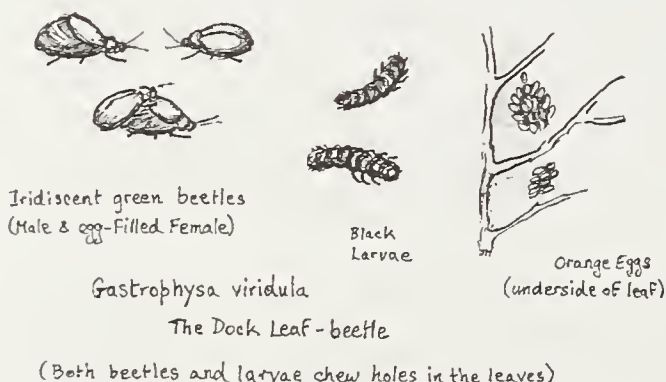
29 May

Joanie McNaughton and Jackie Muscott

Well, the forecast for the day in Edinburgh was not bad, at least dry. Not so for Auchinstarry Basin Marina on the Forth & Clyde Canal, where we were to meet. There, the forecast was bad. And it was right: it rained, drizzled and smirred most of the day. No blazing sun or blue skies for my excursion this year! However, in usual Nats fashion, we set off undaunted. This was a walk of two sections. Firstly along the canal tow-path and then back along the Military Way, climbing up Croy Hill and taking in woodland, moor, bog, disused quarries and coal bings, all with fine views of the Antonine Wall, the Canal, River Kelvin and the Campsies.

For me, the highlight was the bird song rather than sightings. Because of the dampness, all self-respecting birds were hiding in the undergrowth. But boy could you hear them! No shortage of Willow and Sedge Warblers with their territories set all along the tow-path; Reed Bunting, Yellowhammer and Whitethroat too. Several empty egg-shells were noticed along the path, either predated or removed from the nest by a caring parent.

I was delighted to hear lots of Wrens, given the harsh winter and the poor survival rates being reported in many areas: thankfully not here. Nor was there any concern here regarding Song Thrush numbers. Blackbirds too were singing their hearts out everywhere. The only birds on the Canal were a female Mallard and her brood of nine chicks. After crossing the Canal we headed up into the wooded area,



where we had Long-tailed, Great and Blue Tits, and a Robin singing.

From the land of insects, the first to note were the caterpillars of the Cherry Ermine Moth, on Bird Cherry, wrapped up in their silk cocoons tucked under the leaves, pushing their black faces out, almost ready to emerge and attack the leaves. We stopped for lunch at a waterslap where I had stopped two weeks previously on the recce under glorious sun. Then we saw Green-veined White and Orange Tip, but not today. Too wet! We found some leaf beetles *Gastrophysa viridula* on

Docks, two pairs and one or two singles; beautiful iridescent colours. We also saw a Lacewing floating under the trees.

Joanie McNaughton

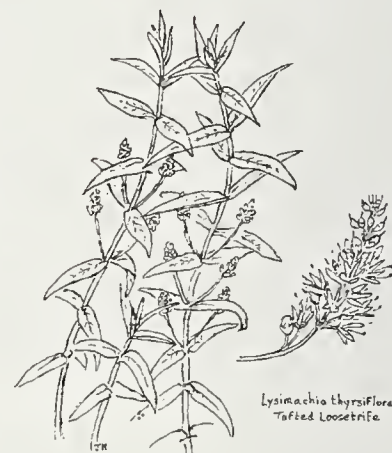
Botanical notes

En route to the Canal: surprising to find Bog Myrtle *Myrica gale* planted among other shrubs.

By the Canal: Bird Cherry *Prunus padus* in full flower.

In the water: plenty of Reed Sweet Grass *Glyceria maxima*, which is also common along the Union Canal. Also, the rare Tufted Loosetrife *Lysimachia thyrsiflora*, a marsh plant mainly found in Central Scotland, much of it in the two canals. It's a 'shy flowerer' but some of the plants near the canal basin were in bud. Other plants included Marsh Marigold *Caltha palustris* and Yellow Flag *Iris pseudacorus* in flower, Bulrushes *Typha latifolia* with their cigar-like seeds dispersing, and the oval leaves of the Yellow Water Lily *Nuphar lutea*.

On the towpath: Smooth Lady's Mantle *Alchemilla glabra*, some plants affected by an orange rust, *Trachyspora intrusa*. Also Red Campion *Silene dioica* with violet anthers caused by a smut, *Ustilago violacea*, which hijacks the anthers so that they produce spores instead of pollen.



Below the lunch spot: another plant with violet anthers but this time natural and characteristic of the plant – Large Bittercress *Cardamine amara*, a less common relative of Cuckoo Flower *Cardamine pratensis*.

The first part of Croy Hill: plenty of Blaeberry *Vaccinium myrtillus* and Pignut *Conopodium majus* both in flower. Both have edible parts – berries in the case of the former, tubers in the case of the latter. In the wooded area, some beautiful banks of Common Dog Violet *Viola riviniana*.

Higher up on the old coal bing: Northern Marsh Orchid *Dactylorhiza purpurella* in flower and Common Spotted Orchid *Dactylorhiza fuchsii* in bud. An even more spectacular rust than those seen at the Canal, *Phragmidium mucronatum*, on a Briar. Also various 'yellow daisies' – the native Mouse-ear Hawkweed *Pilosella officinarum* in flower and the introduced Shetland Mouse-ear Hawkweed *Pilosella flagellaris* in bud, as was at least one species of Hawkweed *Hieracium* sp. All these are not uncommon colonisers of oil-shale bings.

Jackie Muscott

CORSTORPHINE HILL

2 June

Brian Moffat

Our walk covered mainly the southern and west-central parts of the Hill. Leaving the Kaimes Road car park, we followed the main path alongside the Zoo perimeter fence to Rest and Be Thankful. Much of this path is heavily wooded and dark, beneath mainly Beech and Elm trees (vigorous survivors of the continuing campaign against Dutch Elm Disease), although in clearings there were large patches of Garlic Mustard *Alliaria petiolata*, and Few Flowered Leek *Allium paradoxum* past its best. We looked out for Western Gorse *Ulex gallii*: it is at its northernmost and easternmost in the UK on Corstorphine Hill, and it is not straightforward to distinguish it from Common Gorse *U. europaeus*, using Stace's Flora. Near the summit, within a dilapidated wall, we noted a small thicket of Common Figwort *Scrophularia nodosa* (its rarer congener Water Figwort *S. auriculata* has established itself in the Corstorphine Hill Walled Garden) and several Yew *Taxus baccata*, overgrown with Brambles.

At Rest and Be Thankful, we enjoyed the vista eastwards to Edinburgh Castle. This was the denouement scene in R. L. Stevenson's *Kidnapped* and is shown in most illustrated editions of the novel. A tiny triangle of grassy heathland heads the path down to Ravelston Dykes Road and Mary Erskine School, with Common Tormentil *Potentilla erecta*, Heath Bedstraw *Galium saxatile*, Lady's Bedstraw *G. verum* and Heath Speedwell *Veronica officinalis* all in flower. Sycamore and Ash saplings crowd in here.

Entering the southern sector of Corstorphine Hill, high above the Glasgow road, the doorway of old masonry opens onto avenues of splendid old Limes and Oaks that extend across and down the hill. Beneath the trees lie dense, pure patches of Common Chickweed *Stellaria media* Pink Purslane *Claytonia sibirica*, Spring Beauty or Miner's Lettuce *C. perfoliata*, and the end of this year's Ramsons or Wood Garlic *Allium ursinum*. We had followed the Zoo perimeter around three sides of the rectangle but now escaped the trees. We were now in an area of grassy heathland, kept dwarfed with the grazing of numerous rabbits, with rocky outcrops, sills and bosses. We passed a clearing with hundreds of Pignut *Conopodium majus* in flower, alongside Slender St John's Wort *Hypericum pulchrum* (identity confirmed upon flowering). This open area of approximately 4 hectares has a splendidly airy, panoramic outlook across to the Pentland Hills, with a fine grove of Aspens beneath us. This ground has recently become the subject of a vitriolic dispute between Edinburgh Zoo and local community groups: the Zoo hopes to press a 'land-swap' upon the City Council and have the boundaries of the Local Nature Reserve and the Green Belt realigned to suit its purpose. The land to be gained in this deal is third grade, if that. The viewpoint and the heathland seem likely to be lost to the Zoo and so to the people of Edinburgh.

Grassy-heathland species here include: extensive Tormentil, Heath Bedstraw, Ladies Bedstraw, Heath Speedwell (all as at Rest and Be Thankful), Lesser Stitchwort *Stellaria graminea*,

Sheep's Sorrel *Rumex acetosella* and Common Sorrel *R. acetosa*. David Adamson drew our attention to Hairy Sedge *Carex hirta* and several immature orchids nearby. The epilithic flora of local bryophytes and lichens has since been surveyed for the first time by David Chamberlain and Brian Coppins.

Lower down the slope, where the Gorse is occasionally burned, a lurid mix of Rosebay Willowherb *Chamerion angustifolium*, thistles, mainly Creeping Thistle *Cirsium arvense* and Spear Thistle *C. vulgare*, and Common Sorrel, new to me in such a habitat, flourishes among the charred Gorse.

Returning by the same path, we diverged north westwards, skirting Corstorphine Tower and the telecommunication towers. We took the main path, south-north, along the summit ridge. It was not long before we encountered extremely dense thickets of what is the most troublesome invasive species on Corstorphine Hill, a thuggish congener of Raspberry and Bramble that is native to Canada, the Salmonberry *Rubus spectabilis*. Its bright pink magenta flowers and lurid fruit, like no salmon I have seen, are hard to overlook. Its flowers were to be found in ten of the last 12 months (even with snow on the ground), but it is in winter, when the stems look like uniform, matted brazen wire, that the ubiquitousness of the Salmonberry is at its starkest.



At the highest point we came upon thickets, 1m tall, of another alien, the Steeple Bush, *Spiraea douglasii* ssp. *douglasii*; not David Douglas's cleverest introduction. Leaving the path, we cut through towards the woodland edge that overlooks the mown areas, and passed patch after patch of multi-hued, 1970's bathroom colours: Spanish Bluebell *Hyacinthoides hispanica*, usually intermixed with Red Campion *Silene dioica*; 50 metres on, at the woodland edge, we met our first stands of the native English Bluebell, *H. non-scripta*. It is clear that the Plantlife charity's 'Battle of the Bluebells' is being enacted on Corstorphine Hill, though we are unaware of any detailed monitoring of matters. English Bluebells are best seen eastwards of the Clermiston Road entrance to Corstorphine Hill. Mixed with Bluebells, Rosebay Willowherb, Steeple Bush and much else is the tangle of the Creeping Corydalis, *Ceratocarpus claviculata*.

The full history of gardening in rural and suburban Edinburgh is manifested in its outcasts to be seen on Corstorphine Hill, all set in an endlessly varied rocky landscape of abandoned quarries. American botanists, in particular, have been made to feel at home among the flora of Corstorphine Hill. The earliest recorded garden hereabouts was set up at Craigmount Castle *circa* 1570 and is still in use. Much of the earliest detailed map of Corstorphine Hill, General Roy's celebrated Military Survey, is annotated as 'Corstorphine Heath'.

The species list for Corstorphine Hill now includes 420 species: we expect to publish a flora in booklet form this year and to post the list on the website of the Friends of Corstorphine Hill, www.corstorphinehill.org.uk

Brian Moffat

LAURISTON CASTLE

9 June

Eunice Smith

It was a pleasantly mild evening as members of the society met in the car park. Douglas McKean had kindly agreed to accompany us to help identify the plant-life, and, before we set off, Denis Smith recounted some of the Castle's history.

The estate dates back to 1290, when it had been a Royal farm. After passing through the ownership of the Forrester family of Corstorphine, the property was bought by Archibald Napier (his son John was the inventor of logarithms). A new house was built around the end of the 16th century.

The next owner of significant interest was William Law, a goldsmith. (His son, John Law, escaped abroad after a duel and later became Controller of Finance for France.) The ownership of the property passed through several hands, and the landscape was designed in the 19th century. The most recent private owners, William and Margaret Reid, purchased the property and all its contents in 1902. The whole estate was left as "a bequest to the people of the nation" on the death of Margaret Reid in 1926, and responsibility was later transferred to Edinburgh Corporation.

Threats to the continued biodiversity of the site were to be highlighted during the evening, and the first of these related to the ground on which we were standing! Some years ago, specimens of *Pauricotylus pila* had been found in the car park. The small bright round fungus resembles an empty tangerine skin. At that time the only other Scottish site for this fungus (native to New Zealand) had been discovered a few months earlier in Beecraigs Country Park. It was thus an important find, but although its significance had been brought to the attention of the authorities the area is now covered in concrete!

Before we started on an anti-clockwise circular walk within the woodland, attention was drawn to current proposals for the conversion to allotments of part of the south-eastern area of grassland. The undulating lawn bears a magnificent Pine, and objections have already been raised by local people to the

threat of such a fundamental change in the character of the grounds. It is hoped that the proposal for allotments on that particular site will be abandoned or rejected.

As we set out along the sheltered walk between the trees, we searched for the Blue Anemone *Anemone apennina*: it is one of several attractive plants presumed to be early introductions to the grounds. It proved



Pauricotylus pila
(bright orange crumpled balls)

difficult to find, as the flowering season was past, but eventually its healthy green foliage was revealed. Each year a local resident checks that the flower is in good health and removes some of the encroaching Ivy that threatens its growth. Indeed, nearer the entrance, the same Ivy has all but swamped the many Broad-leaved Helleborines *Epipactus helleborine* which border the western side of the path.

However, to more positive news. Several ferns grow happily including the Lady, Scaly Male, Male and Broad Buckler Ferns, the beautiful Hart's-tongue Fern and the (introduced) Royal Fern. As we wandered through the woodlands and along the paths there was a total of at least 17 grasses, sedges and rushes, including an immature rush which created rather a puzzle. It turned out to be common *Juncus effusus* the Soft Rush: the final determination was based on the noting of a tiny arista (bristle) at the end of the sheath, near ground level.

As well as the native plants there were some introduced (but equally welcome) species such as the Martagon Lily *Lilium martagon*, Winter Heliotrope *Petasites fragrans*, Dame's Violet *Hesperis matronalis* and Russian Comfrey *Symphytum x uplandicum*. A less obvious introduction is Pink Purslane *Claytonia sibirica*. Other more common wild flowers such as the Speedwells and Bluebells brought back memories of childhood days or walks in more rural places. The crucifers Garlic Mustard *Alliaria petiolata* and Hedge Mustard *Sisymbrium officinalis* were good news for insect life as were several of the other plants.

Between the front of the house and the boundary wall lie two well-used croquet lawns, a hard-surface pathway and a strip of rough grassland beyond it. In springtime this area used to be covered in wildflowers and attracted many insects. However many Daffodils have been planted and, although they provide a colourful show, their natural increase is crowding out many of the wildflowers including the Lady's Smock (or Cuckoo Flower) *Cardamine pratensis* which used to be such a delight. There is now a much reduced variety and number of flowers to attract and sustain the colourful insects and other wildlife which depend upon them in the early part of the year.

Due to the fact that our visit was in early June, few fungi were in evidence. However, later in the year, specimens

of *Russula*, and *Amanita*, and even the Giant Puffball *Calvatia gigantea* can be found within the grounds.

Denis pointed out the carved initials of Archibald Napier and his second wife Elizabeth Mowbray above the windows on the front of the Castle. As we turned to go down the main driveway, we passed the erstwhile site of the Giant Bellflower *Campanula latifolia*. This was one of the "protected" sites of a species which had been selected for inclusion in the Edinburgh Biodiversity Action Plan in 2000. Unfortunately, the plant has not been seen in recent years: a smooth lawn and tidy flower border now occupy that spot!

Although a Heron often stalks around the pond, the menu elsewhere must have been more attractive that evening.

Many of the trees in the 19th century designed landscape are known to be of special interest. As we neared the end of our evening visit, we went to inspect the remains of a large tree near the main drive: it had been felled and removed some years ago but had previously been identified as a Large-leaved Lime *Tilia platyphyllos*. Now there was abundant re-growth around the base, and Douglas was engaged in an animated discussion as to the identification. On careful inspection it was indeed found to be Large-leaved Lime, though not simply *subsp. cordata* but rather *subsp. platyphyllos*, a much rarer taxon and not the British one.

The bequest by Mr & Mrs Reid of Lauriston Castle, its contents and grounds was very generous. Fittingly, careful planning and management are still evident in the layout of the grounds. The croquet lawns are well-used, and the more recent addition of the well-maintained Japanese garden adds new interest, especially as it provides an attraction for dragon-flies. There are also tentative plans for an Italian garden, but it is to be hoped that the biodiversity value of the grounds will be recognised and that the native wild flowers will be afforded their rightful space in the natural meadow and woodland areas.

The weather had been kind to us until almost the end of the evening. Some mild rain arrived as well-earned thanks were offered to the helpers and to Jackie and her faithful notebook and biro for meticulous recording of the plants of interest.

Eunice Smith

UPHALL STATION

23 June

Jackie Muscott

The party met in the station car park, and as people gathered for the evening excursion, we were able to examine the station weeds, the most interesting being Field Pepperwort *Lepidium campestre*, uncommon in Scotland and probably introduced, but doing quite nicely here, thank you. Eventually a dozen or so people made their way to the meeting point, and we set off along the wooded path from the end of the station platform. The path follows the

railway line for some distance, and then turns south past a series of ponds and ditches, rough grassland and recently-planted trees. According to John Watson, this area was once the site of an oil refinery based on the shale which was mined so extensively in West Lothian. Later the plant manufactured Biprox, an early detergent, candle wax, ammonia and fertiliser, before closing down, as the work moved to Grangemouth.

The area has been 'reclaimed', and some very odd trees have been planted along the track, including Sea Buckthorn *Hippophae rhamnoides*: it is not native round here, being far from the sea, and has a bad habit of suckering. More interesting was Red Alder *Alnus rubra* which has toothed, pointed leaves, rather like those of Grey Alder *Alnus incana* but larger. The best way of checking the identification is to examine the underside of the leaves where the edges are folded back like a tiny hem. Both these alders are introduced, but, while Grey Alder is frequently planted on reclaimed land, Red Alder is quite rare.



Clouded Border Moth
Lamaspilis marginata

We did not stay long on the path but, attracted by the sight of orchids, turned into a rough meadow. Here we were delighted to find Common Spotted Orchid *Dactylorhiza fuchsii*, Northern Marsh Orchid *D. purpurella* and their hybrid *D. x venusta*, along with Oxeye Daisy *Leucanthemum vulgare*, Yellow Rattle *Rhinanthus minor* and patches of Zigzag Clover *Trifolium medium*. Colourful flowers of Ragged Robin *Silene (Lychnis) flos-cuculi* and Lesser Spearwort *Ranunculus flammula* decorated the ditches and wet places, while larger plants such as Common Reed *Phragmites australis*, Reed Canary Grass *Phalaris arundinacea* and Bottle Sedge *Carex rostrata* were growing in the large pond.

Low-flying Swifts swooped over us as we stood by the pond admiring the view. We had seen Swallows earlier and had heard Chiffchaffs, other assorted Warblers, Wren, Blackbird and, by the water, Reed Buntings. It was a bit late in the day for butterflies, but we did see one Meadow Brown *Maniola jurtina*, and a variety of moths, including Chimney Sweeper *Odezia atrata*, Latticed Heath *Chasmia clathrata clathrata*, Clouded Border *Lomaspilis marginata*, and a propeller-like Feather Moth (?*Platyptilia pallidactyla*). A Blue-tailed Damselfly *Ischnura elegans* was easily identified, but another damselfly, a blue one, did not hang around long enough.

Altogether, not a bad haul for an evening meet!

Jackie Muscott

NINE MILE BURN TO NORTH ESK RESERVOIR
26 June
Michael Jones

I know of many worse, and few better ways to spend a warm Saturday in late June than botanising in a plant-rich habitat in the hills. The land around North Esk Reservoir was described in the Pentland Hills Vegetation Survey of 1976 as part of one of the three most botanically diverse areas within the Hills. When led by someone with a great depth of local knowledge, the experience is all the better, and our leader for the day was Michael Jones, who has lived in the area for more than 30 years and has also covered the ground as an Area Ranger for the Regional Park.

Two years previously, on a cool damp and windy afternoon, he showed us some rare plants near the Henshaw Burn, one of the two main burns feeding the reservoir. On this occasion we visited the other tributary, the Gutterford Burn. Starting from Nine Mile Burn, we had reached North Esk by way of Spittal Farm, passing through the col between Paties Hill and Spittal Hill. The hillside is the typical sheep-grazed upland pasture of Southern Scotland: it is only when the hillside steepens above the reservoir that the first of the base-rich flushes is encountered. Immediately, the botany becomes interesting, with a great variety of sedges (we found at least 14 species) and late-flowering spring plants such as a diminutive Marsh Marigold *Caltha palustris*, its flowers no larger than those of Lesser Spearwort *Ranunculus flammula*.

After lunch in the company of persistent midges and clegs, we descended to the east shore of the reservoir. The small islands are the nesting sites of a large colony of Black-headed Gulls, and there were many adult and juvenile birds to be seen and heard. With the demise of the colonies at Bemersyde and elsewhere, North Esk has become an important refuge for these birds. Although they dominate,

there are also some Common Gulls and Mallards, and a pair of Canada Geese has bred, producing one gosling. The water was some 30 centimetres below its normal level and had an algal bloom that made it resemble water in which an artist has cleaned his paintbrush. It is more pleasant to the eye to look at a finished picture, and few

paintings could surpass the banks of the reservoir for variety and intensity of colour, a composition in which Thyme *Thymus polytrichus*, Birds-foot Trefoil *Lotus corniculatus*, White Clover *Trifolium repens* and Heath



Hairy Stonecrop
Sedum villosum

Speedwell *Veronica officinalis* dominated. Moving colour was provided by two Small Copper and two Common Blue butterflies, as well as the less colourful but abundant Small Heath and Green-veined White.

We saw pink and white flowers of Hairy Stonecrop *Sedum villosum*, and yellow Rockrose *Helianthemum nummularium*. The Moonwort *Botrychium lunaria* was more elusive but perhaps a dozen were found, as well as two Blaeberry Bumblebees. Chimney Sweeper moths flew around Pignut *Conopodium majus*, their food-plant. When the time came to retrace our steps, it was with regret that this day could not continue indefinitely. However, from the col, the splendid view of hills far and near made the return climb worth the effort. After some six and a half hours, and with a final pause to look at wriggling clusters of Bird Cherry Ermine moths in their grey tents, the 14 suntanned members returned to the start point, all the richer for our day on the hills,



Moonwort
Botrychium lunaria

David Adamson

KELTNEY BURN
3 July
David Darling, SWT Convenor

The grid reference we had been given was rather confusing and had us zooming up and down the Schiehallion road, attempting to find our hosts. We had all been here before, and so, eventually reverting to memory, we found our way to the parking spot. David and two excellent lady helpers from the local management committee steered the nine of us up the rough track to the Balcroich Meadows, where the main botanical interest lay. Oddly the name means Place of the Gallows, but no macabre explanation was forthcoming.

At a break in the roadside dyke, we found our first rarity, the Small Cow Wheat *Melanopyrum sylvaticum* distinguished by its deep yellow corolla, with a downward pointed lip. Across the track, in a meadow spread over a rolling hillside, it was possible to see scores of Greater Butterfly Orchids *Platanthera chlorantha*. A little higher, on a prominent ridge, were both the tiny Small White Orchid *Pseudorchis albida* and the Fragrant Orchid *Gymnadenia conopsea* agg. It was here that we had lunch, before taking shelter from a heavy shower.

After saying goodbye to our hosts we resumed our rambling on the drier hillocks where we also found the white umbels and deeply dissected leaves of the strongly scented Spignel *Mentha athamanticum*, as well as Alpine Bistort *Persicaria vivipara*, and Quaking Grass *Briza*

media. In the damper hollows notable herbs were Globe-flower *Trollius europaeus* and the three common *Dactylorhizas*, Northern Marsh Orchid *D. purpurella* and Common and Heath Spotted Orchids *D. fuchsia* and *D. maculata*. Where it was slightly wetter, the dominant plants were Meadowsweet *Filipendula ulmaria* and Soft- and Sharp-flowered Rushes *Juncus effusus* and *J. acutiflorus*.

In places with some tree cover, Bird's Nest Orchid *Neottia nidus-avis* and Twayblade *Neottia (Listera) ovata* made up the eight orchid species for which the meadows are renowned.

A rectangular pool was at one time the local curling pond. It was fringed by Bottle Sedge *Carex rostrata* and Water Horsetail *Equisetum fluviatile*. At least three species of Odonata were seen here: Large Red Damsel, Common Blue Damsel and the vigorously mobile Common Hawker. We wandered gradually downhill to join the track, before following the inaccessible gorge of the Keltney Burn back to our cars.

Neville Crowther

Footnote: Some members of the party went on to visit the Fortingal Yew, reckoned to be several thousand years old. It is recovering from the miserable state it was reduced to some time ago. We noted a Swallow's nest in the bus shelter and ended the day with scones and cream at Weem.

Jackie Muscott

HOPETOUN HOUSE

7 July

Peter Stevens, Ranger

It seems such a long time since I rangered at Hopetoun in the summers and something of a shock to realise it is almost ten years ago. As we walked round the grounds, I saw that I had lost several old friends, venerable old Beeches and Oaks planted by the 2nd Earl in the 18th century.

Ranger Peter Stevens met us on a beautiful evening and, after a brief talk on the history of the William Bruce and William Adam house, home of the Hope family for 300 years, led us to the Spring Garden Trail with its wide vista south of the house, golden with daffodils in the spring.

We noted the old bowling green and paused by a young Tulip Tree *Liriodendron tulipifera*. On either side of the central path an avenue of Hungarian Oak *Quercus frainetto* had been planted by the 4th Marquis. A small burn trickles across. Beyond the enclosure wall we looked out to the South Deer Park where there was a herd of Fallow deer.



Continuing along the path, we noted a damp bank of Common Spotted Orchid *Dactylorhiza fuchsia*, Flag Iris *Iris pseudacorus*, Azalea shrubs, Snowy Mespilus *Amelanchier laevis* and Kerria *Kerria japonica* before we came to a giant Cedar of Lebanon *Cedrus libani* where woodpeckers nest and a Holm Oak *Quercus ilex*.

The retaining perimeter wall had collapsed and was being rebuilt. On the right was the trunk of an ancient Beech, its rotting branches amputated for safety. Here is another of William Adams vistas, from the west of the house. A handsome Copper Beech stands here.

We moved on to Lime Avenue, an old carriage drive leading to Mid Lodge and entrance to the South Deer Park. Crossing Lime Avenue we came to the Sea Walk Trail and the main vista west of the house, with the Round Pond and ha-ha, a deep ditch dug to contain the animals in the South Deer Park so the view is not obscured by wall or fence. At the top of the ha-ha we found Lady's Bedstraw *Gallium verum* and Black Spleenwort. *Asplenium adiantum-nigrum*.

A widespread and attractive fern found in rock crevices, walls and stony banks, Black Spleenwort is locally abundant in the west of the country and can be found on walls throughout England, including towns and cities. The fronds are triangular in shape and divided into 15 or more leaflets, arranged alternately along a dark purple-black midrib. New fronds appear from June and can grow up to 50cm in length and remain green for over a year. Black Spleenwort needs damp conditions at first but once established can tolerate dry conditions eg in a rockery or wall. The vine weevil, a major pest, sometimes nibbles the leaf edges but few ferns have many insect associations. Some ground beetles may be found in the foliage litter at the base of the plant and ladybirds may shelter in the fronds.

We continued to Hope's Walk via the Sycamore plantation. Just inside the gates lay a second casualty, another old Beech toppled by the gales. On the way, we found Rhododendrons and a *Spiraea* relative which I remembered as 'Brides Blossom'.

Peter then led us to the oldest tree in the parkland, a Yew estimated to be about 500 years old. On the way was another Beech trunk, and I noticed a huge gap where an Oak had stood. Many ornamental laurels had been planted in this area. Portugal Laurel *Prunus lusitanica* was in full flower, the air heavy with the scent. I had never seen such a prolific 'floraison' in all my time at Hopetoun. All laurels, except Sweet Bay, are poisonous, releasing a cyanide, and the cherry-like fruits are tempting but dangerous.

We climbed up to the site of Abercorn Castle, an ancient stronghold of the Black Douglas clan, powerful rival to the Stuart clan for the crown of Scotland. Bombarded from the sea with the help of the French, it was destroyed in 1455 by James II. Three Cedars of Lebanon were planted to mark the site. Continuing through what is described as the Wilderness, because it was not landscaped, we came to Sea

Walk, with good views of the River Forth, the two bridges, the Fife and Clackmannan coast and the Ochils beyond. Below us was the North Deer Park where the Red Deer herd is kept. The hinds had just calved. There are two stags not at peace together. The original Yew hedge borders the path. Among the ground vegetation we noticed the prolific spread of Pirri-pirri Bur *Acaena novae-zelandiae*, an alien species introduced by seed clinging to sheep's wool. I noticed that the roof of the old hay barn in the Deer Park had collapsed. Near the entrance to the Sea Walk, the old wall bears ominous cracks and has been fenced off. On it grows the lovely little alpine, Fairy Foxglove *Erinus alpinus*, with its dainty pink flowers.

Peter invited us to the 'Howf' for welcome tea or coffee. We admired his interesting exhibition and the work with school children. It had been a glorious evening and we thanked him warmly.

Mary Robertson

Footnote: The 'Brides Blossom' has been named as *Holodiscus discolor*, also known as *Oceanspray*. The Cherry and Portugal Laurels are members of the Cherry genus, Rose family, while the Bay Laurel is a true Laurel. I see no reference to any of these in my book of poisonous plants; it's only a small book but does have Laburnum, Yew etc

Jackie Muscott

ST. CYRUS NATIONAL NATURE RESERVE

10 July
Lyn Blades

The coach left Edinburgh at 9am, transporting 28 of us into the mist and rain. Fortunately we were still able to view the Forth Rail Bridge, which never ceases to impress, despite my childhood disappointment that the train goes straight across it rather than up and down, roller-coaster style. My fellow travellers were enjoying the views afforded by the height of the coach and the luxury, for some, of not having to drive. By Loch Leven mist was adding effect to the lashing rain.

Meanwhile, on the coach, we were suffering from a free sauna until there was a passenger mutiny and the driver was forced to find out how to turn down the heating system.

My first piece of botanical education came when Mary Clarkson explained that the fields of lovely purple flowers were the humble potato. Other highlights of the day follow.

On arrival at St Cyrus, we discovered Swallows nesting in the eaves of the SNH Visitor Centre, which was built in the late 1800's as a lifeboat station. We proceeded to the National Nature Reserve and the wooden 'Gurkha Bridge'. In the past the land under the bridge was regularly inundated by the sea, but this is now rare,

owing to the formation of the sand dunes to seaward. This former salt marsh had some interesting species: Common Reed *Phragmites australis*, Reed Canary Grass *Phalaris arundinacea*, Sea Club-rush *Bulboschoenus maritimus*, Tall Fescue *Schedonorus (Festuca) arundinaceus* and Saltmarsh Rush *Juncus gerardii*.

Once off the bridge, we followed the path to the sea: Ragwort *Senecio jacobaea* was covered in Cinnabar Moth caterpillars. We counted 60 on one plant, and Neville estimated that there were about 5000 caterpillars in total. Many of the plants were stripped bare, and the caterpillars had consequently nowhere to go. We were delighted to see the beautiful black and red adult..... the caterpillars have a long emergence period and can therefore overlap with the adult moth, but it's unusual.

A special bonus on this trip was the two younger members of the Nats, Abigail and Fraser, who showed us the Yellow Shell Moth, a day-flying moth, and the Plume Moth, with its propeller-shaped wings, both trapped in clear plastic containers, which enabled us to see their identifying features. Bumblebees and grasshoppers were also there, as well as a beautiful Common Blue butterfly. Younger dunes do not have so much to offer botanically, but there was plenty of animal life. Brown-lipped and White-lipped Banded Snails, which vary in colour according to their background vegetation, were common. We also observed beautiful Six-spot Burnet Moths and an 'anvil' where a Song Thrush had feasted on snails.

The weather worsened at this point, with the wind increasing and the rain lashing down, and so we decided to abandon our search for the dead Dolphin reported to us by a passer-by. One group beat a hasty retreat to have lunch in the Visitor Centre, while we others followed on to the dune area where a number of specialised grasses were well established and whose roots serve to stabilise the sand: we saw Sand Couch *Elytrigia juncea*, Lyme Grass *Leymus arenarius* with its photogenic broad silver-grey leaves and Marram Grass *Ammophila arenaria*, whose leaves curl up in dry weather, forming tubes which protect the stomata and so prevent moisture loss.

After these grasses have become established, other species can emerge, especially in the inter-dune slacks where the (fresh) water table is near the surface. This type of habitat is a rarity, and the site is well-known for the Clustered Bellflower *Campanula glomerata* which we spotted here and subsequently found scattered all over the lower dunes. Other flowering plants found were Hogweed *Heracleum sphondylium* (in shrunken form owing to dehydration from dry conditions), Common Valerian *Valeriana officinalis*, Perforated St. John's Wort *Hypericum perforatum*, Yellow Rattle *Rhinanthus minor* (a hemi-parasitic plant which absorbs nutrients from the roots of grasses), Lesser Meadow-rue *Thalictrum minus*, a lime-loving plant favoured by bees and Burnet-saxifrage *Pimpinella saxifraga*. When the habitat changed to flatter grassland, Maiden Pink *Dianthus*



February 2010
Castlegmore Point



Approaching Blackness
January 2010. Rev. The Crowther



Cocklawburn beach
May 2010



Dottarel watchers



The path to Lurchers Crag
Iain McCulloch



Looking out the ferns



Betty conducts operations
She Crowther



Watching Sanderling
Gullane Point - Roger Holmes

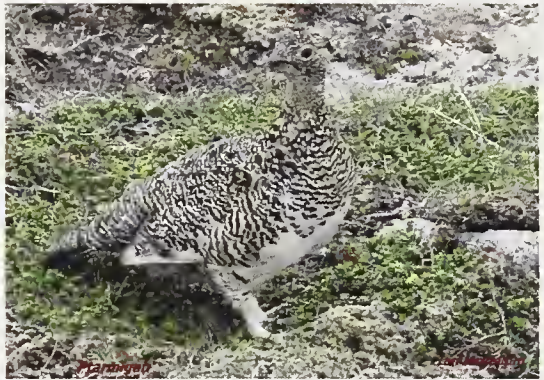


April 2010

Lichenology class, Woodhall Dean



Dwarf Cornel
Old Chatham



Partridge

Chickadee



Four-spotted Chaser



Four Spotted Chaser



Red Moss



Amagach Woods



Green Docket Beetle had
other things on their mind



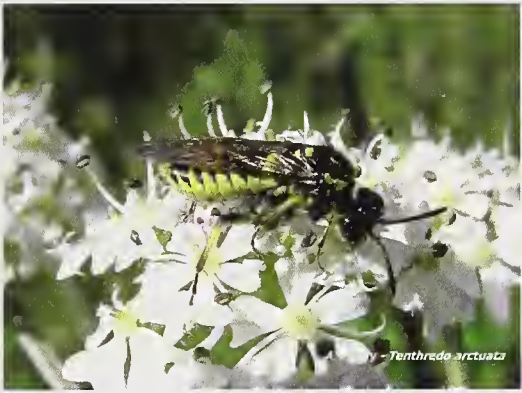
'Sky pointing'



Red Dragonfly
in the Lungs



Small Pink Flowers
in the Lungs



Tenthredo arctata



An Ichneumon fly
Amblytes armatorius



A Plume Moth
Emmeiina monodactyla



Lattice Heath moth
Drimastix, W. L.

Tom Delaney



Emerald Damselfly
Tom Delaney



Exuvia of a 'Quad'



The Shield Bug
Picromerus bidens



Aeshna juncea



A hoverfly
Leucozona glauca



Female Common Emerald



Exuvia of a Common Hawker
Sue Crowther



Grass of Parnassus
Aberlady. N.Crowther



Inter-dune slacks
Aberlady LNR. Neville Crowther



Redwort in the dune
slacks, Aberlady Bay
Neville Crowther



St. Andrew's Church
Tom Delaney



Bird's Nest Orchid
Tom Delaney



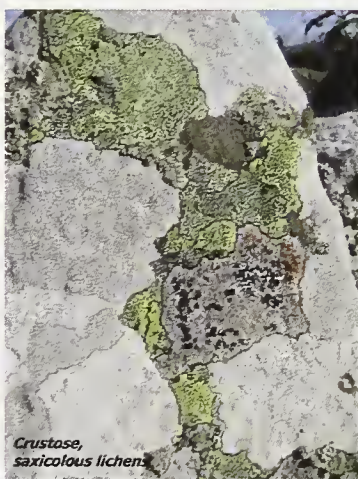
Red Orchid
Aberlady dune slacks
Sue Crowther



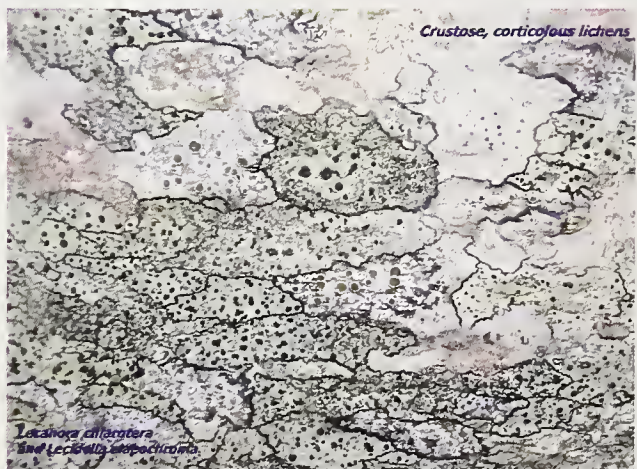
Common Storksbill at Aberlady
LNR, Tom Delaney



Centaurry at Aberlady
Tom Delaney



Crustose,
saxicolous lichens



Crustose, corticoid lichens

Lecanora ciliatula
and Lecanora subciliatula

deltoides, a locally scarce plant, was very much in evidence. Mary C. collected a 'nice' specimen with anther smut to pass on to the Royal Botanic Garden Edinburgh for their records. Other 'lovely' smuts were found too, much to the joy of both Mary and Jackie. Mary pointed out the Fairy Ring Mushroom *Marasmius oreades* and wood stained by the Green Wood Cup fungus *Chlorociboria aeruginascens* with its tiny, turquoise, cup-shaped fruiting body.

Sedges are indicative of specific specialised habitats, and here we found Sand Sedge *Carex arenaria*, whose runners bind the sand together.

On the landward side of the reserve, a line of lava cliffs overlooks the flat grassland: these are relict sea-cliffs, dating from the last ice-age. Around 10,000 years ago, when the ice melted, the unburdened land rose, the sea retreated and the cliffs were left high and dry. We followed the path (made in 1882) up the cliff to search for rarities and to find a good viewpoint for lunch. A highlight of the day for some of us was seeing Wild Liquorice *Astragalus glycyphyllos*, which is very rare in Scotland. The Wood Vetch *Vicia sylvatica* with distinctive flowers, white with purple pencilled veins, also stood out. Other species of interest were White Stonecrop *Sedum album*, Sea Plantain *Plantago maritima*, Hemp Agrimony *Agrimonia eupatoria*, Opium Poppy *Papaver somniferum* and Great Mullein *Verbascum thapsus*.

We had wonderful views from the cliff-top, with sea and sand in both directions and a Heron flying past to complete the picture. On the way back we followed the path below the cliff past the fishermen's cottages and found another couple of unusual specimens here: the Carlina Thistle *Carlina vulgaris*, a particular treat as it is very rare in Scotland, and Lesser Water-plantain *Baldellia ranunculoides*, also rare. Another smut was found on Lady's Bedstraw *Galium verum*, and specimens were collected for RBGE.

On passing the old graveyard, Neville pointed out hundreds of Peacock Butterfly larvae (black and spiny, with pale spots and chestnut pro-legs) feeding on nettles. Moths included two Garden Tigers, a Ghost and several more Yellow Shells.

As we pushed on southwards, Mollie passed on an impressive bird list: Stonechat, Buzzard, Herring Gull, Great Black-backed Gull, Cormorant, Oystercatcher, Guillemot, Red-throated Diver, Meadow Pipit, Stonechat, Blue-Tit, Wren, Robin, Blackbird, Song Thrush, Linnet, Chaffinch, Goldfinch, Siskin, Willow Warbler, Sedge Warbler, Reed Bunting, Skylark, Redpoll and Yellowhammer.

As we returned to the coach, the noise of Fulmars on their nesting ledges on the cliffs caught our attention. The weather had now finally cleared, and as a final treat we

had great views of the resident Peregrines feeding their two chicks.

Soon we dozed contentedly as we made for home.

Dorothy Hay

MONKTONHALL BING

14 July

Douglas McKean

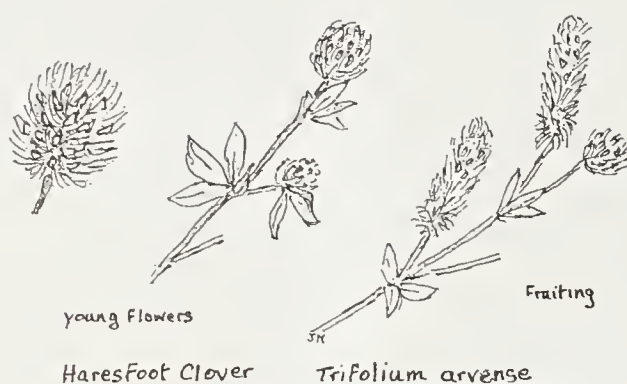
On 12 July, a group of Edinburgh Nats met at Monktonhall Bing, (given on the excursion list as Shawfair Bing). It lies in Midlothian, between Danderhall, and Millerhill.

The shafts of Monktonhall Mine, first sunk in 1954, went down 3,000 feet and were reputed to be the deepest in the UK. Deep limestone coal production commenced in 1967 to supply Cockenzie Power Station, and 420 tons per hour were brought out. At its peak in 1971 1,700 miners worked there. Alas the colliery was closed finally in 1997.

The bing has been relatively untouched for decades. Its steep-sloping sides are well vegetated with various trees and shrubs, but it has retained a fairly open habitat on the top, which we mainly came to see. Sad to relate, this interesting site may well be decimated if or when the Waverley Railway project goes ahead

The commonest herb was Perforate St John's Wort *Hypericum perforatum*, among which grew a profusion of dwarf herbs such as Dwarf Cudweed, *Filago minima*, and swathes of Mouse-Ear-Hawkweed, *Pilosella officinarum*, around the western periphery. Some of the latter had red flowers but were not the Fox-And-Cubs type, as they were single-flowered. Any large stone we overturned on our route was found to be sheltering masses of black ants. Arriving at the northern end we descended the slope onto a grassy marshy area which held lots of Michaelmas Daisies, mainly *Aster x salignus*, Marsh Woundwort, *Stachys palustris*, Common Spotted Orchid, *Dactylorhiza fuchsii*, and Purple Marsh Orchid, *D. purpurella*. A single plant of Fragrant Orchid, *Gymnadenia borealis*, was found on the recce but escaped us on the group visit.

A whole host of unusual plants was also found here: Bullrush, *Typha latifolia*, an Evening Primrose, *Oenothera glazioviana*, Tutsan, *Hypericum androsaemum*, Dotted Loosestrife, *Lysimachia punctata* and the White Flowered Musk Mallow, *Malva moschata* var *alba*. The weather had been threatening, and, just as we were furthest from our cars, the heavens opened, and we all got thoroughly drenched (my raincoat pockets filled with about 5cm of water).



At the edge of the northern boundary we noted Guelder Rose, *Viburnum opulus*, but this may have been planted by landscapers. On clambering back up the steep slope to the 'summit plateau' once again, we noted several Butterfly Bushes, *Buddleja davidii*, Goat Willow, *Salix caprea*, and Downy Birch, *Betula pubescens*, and these mainly looked quite dwarf. They were quite stout but unduly short, because the substrate did not agree with them. Other plants of note on this plateau were Cut Leaved bramble, *Rubus laciniatus*, Soft Lady's Mantle, *Alchemilla mollis*, two prostrate Cotoneasters (the Herringbone one *C. horizontalis* and another, as yet unidentified), Woodsage, *Teucrium scorodonia*, White Stonecrop, *Sedum album*, and Marjoram, *Origanum vulgare*, Japanese Spiraea, *Spiraea japonica*, Hare's-foot Clover, *Trifolium arvense*, Ternate-leaved Cinquefoil, *Potentilla norvegica*. We failed to refind the Pyramidal Orchid which had been located just a week or so previously, but the pelting rain did not help.

More garden escapes were flourishing on the site: Peach-Leaved Bellflowers, *Campanula persicifolia*, and the pink-flowered (garden) Bloody Crane's Bill, *Geranium sanguineum* var *striatum*, Flowering Currant, *Ribes sanguineum*, the quite beautiful Small Scabious, *Scabiosa columbaria*, Opium Poppies, *Papaver somniferum* in a range of colours. Some of these plants are new to the county, and samples were exhibited at the BSS/BSBI Exhibition Meeting, held annually at the Royal Botanic Garden. The bad news is that Giant Hogweed, *Heracleum mantegazzianum*, is advancing up the slopes from a huge colony of 1000 plus plants close by the track leading up the bing and behind the farmer's barn. On my recce visit (and previously), a covey of Grey Partridges, *Perdix perdix*, a BAP species, was seen. We ran out of time and so could not visit the southeastern corner which has interesting settling pools now largely vegetated with reeds and Bullrushes *Typha latifolia*. There are also extensive Birch woods adjoining the railway on the east of the site.

Despite the inclement weather, I think most people enjoyed the experience.

Douglas McKean

LINN DEAN

17 July

Neville Crowther & Richard Buckland

From the layby on the A68 at Soutra, there is little visible of either the deep gorge through which winds the Linn Dean Water or the herb-rich meadows on its flanks. The diagonal walk to enter the gorge upstream passes through pasture dominated by rushes *Juncus effusus*, *J. acutiflorus* and *J. bufonius*, Common Spotted Orchids *Dactylorhiza fuchsii*, Meadowsweet *Filipendula ulmaria*, Yorkshire fog *Holcus lanatus* and Tufted Hair Grass *Deschampsia cespitosa*. As almost a score of us passed,



Chimney Sweeper Moth

Ringlets and Meadow Browns fluttered ahead and wherever the Pignut *Conopodium majus* flowered, the Chimney Sweep moths also arose.

As we descended to cross the burn and turned downstream it was clear that we were now in base-rich grassland, where calcicoles dominated. Red

Fescue *Festuca rubra*, Meadow Oat *Avenula (Helictotrichon) pratensis* and Quaking Grass *Briza media* were common as were Glaucous and Flea Sedges, *Carex flacca* and *C. pulicaris*. Thyme *Thymus polytrichus*, Mouse-ear Hawkweed *Pilosella officinarum*, Rockrose *Helianthemum nummularium* and Cat's Ear *Hypochaeris radicata* were blooming colourfully.

Lesley Fairweather led the way in counting the larvae and imagos of Northern Brown Argus butterflies, the star species of the reserve and scarce elsewhere in Britain. Here, unlike at other sites, it maintains its numbers. On this day there were dozens of the spectacular Dark Green Fritillary in flight and many noteworthy moths such as Gold Spangle *Autographa bractea*, Barred Straw *Eulithis pyraliata* and Plume Moths *Ennelina monodactyla*. Surprisingly, as we ate lunch, Blackcaps and Willow Warblers were still singing territorially in the gorge shrubbery. Swifts and hirundines hawked above, while Grey Wagtails and Dippers searched along the burn.

During the afternoon we walked back southwards, searching, successfully for Moonworts *Botrychium lunaria* and less so for Hairy Stonecrop *Sedum villosum*, both scarce members of the



local flora. We concluded our circuit of the reserve by wading through the marshy grassland uphill from the gorge. Early and Northern Marsh Orchids *Dactylorhiza incarnata* and *D. purpurella* were still prominent, as were Heath Spotted Orchid *D. maculata*, Marsh Thistle

Cirsium palustre, Great Birds-foot Trefoil *Lotus pedunculatus*, Marsh Bedstraw *Galium palustre* and Marsh Lousewort *Pedicularis palustris*. It was only as we concluded our perambulations that we noticed how numerous the wind turbines had become since our visit three years before. If H.G.Wells had been able to use his time-machine to drop in to see us, he might have thought that the War of the Worlds had begun.

Neville Crowther

HEIGHTS FARM & DRUMTASSIE

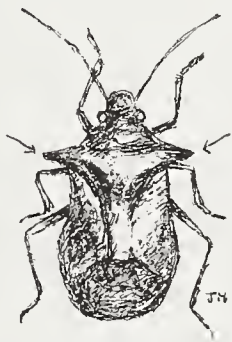
24 July

Jackie Muscott

Heights Farm lies between Blackridge and Avonbridge and adjacent to Blawhorn Moss in West Lothian.

A group of 17 Nats started from the Farm, initially walking along the road until we turned westwards down a track with fine marsh meadows on either side. The meadows had colourful displays of Marsh Woundwort *Stachys palustris*, various Buttercups *Ranunculus spp.* and Common Spotted Orchids *Dactylorhiza fuchsii*. It was a pity there was not more sunshine, as these meadows would no doubt have been teeming with flying insect life. The keen eyes of Neville spotted a Spiked Shieldbug *Picromerus bidens*. This distinctive shieldbug has very spiky ‘shoulders’, feeds on the larvae of other insects as well as sap from plants, and is not so frequently seen in this area.

The next section of the walk followed through some fine stands of Beech. A Jay was heard calling, and soon some people had a good sighting of the bird in flight. Several members collected Chantarelles *Cantharellus cibarius* from beneath the beeches, and a bit further on we were struck by a clump of vivid scarlet flowers, which turned out to be a garden escape the Maltese Cross *Silene (Lychnis) chalcedonica*.



Spiked Shieldbug
Pieromerus bidens

We stopped for lunch in the shelter of some shrubs, with several members identifying plants in a flush nearby. Marsh Speedwell *Veronica scutellata* which was found flowering had escaped the keen eyes of Jackie on previous visits. What nobody realised for some time was that a superb female of the Common Hawker dragonfly *Aeschna juncea* was resting on a nearby bush: a good opportunity for members to take photographs. We then moved into the main part of the site, which is a disused opencast coal mine. The residual shale heaps

were interspersed with small ponds in the depressions, and so the vegetation included plants of dry grassland and heathland as well as of water and marsh. The former included Oxeye Daisy *Leucanthemum vulgare*, Twayblade *Neottia (Listera) ovata* (another plant that Jackie had missed), Yellow Rattle *Rhinanthus minor*, and the dainty little Silvery Hairgrass *Aira caryophyllea*. The water plants included a good population of Mare’s-tail *Hippuris vulgaris*, Branched Bur-reed *Sparganium erectum*, Ragged Robin *Silene (Lychnis) flos-cuculi*, Marsh Arrowgrass *Triglochin palustre* and the tiny Bristle Clubrush *Isolepis setacea*. Frogs and various damselflies were also seen around the ponds.

Two *Charophyte* (Stonewort) sites were noted. Stoneworts are a group of complex algae that superficially resemble vascular plants more than they do most algal groups. Specimens were collected for microscopic examination. Unfortunately they were too covered in lower algal matter to complete an exact determination. However sufficient material was available to strongly indicate that at least one specimen was Delicate Stonewort *Chara virgata*.

Some of the ponds contained Broad-leaved Pondweed *Potamogeton natans* on which the Brown Chinamark moth *Nymphula nymphaeata* was laying. The moth’s larvae cut bits off the Potamogeton leaves to make themselves protective cases. Other species of lepidoptera included Ringlet *Aphantopus hyperantus* and Meadow Brown *Maniola jurtina* butterflies and the Bright-linc Brown-eye moth *Lacanobia oleracea*. More unusual was the Beautiful Chinamark *Nymphula stagnata*, a small Pyralid moth which is spreading northward and is relatively new to the area.

Roger Holme and Jackie Muscott

THE HIRSEL

31 July

Michael Braithwaite

A party of just over 20 gathered at The Hirsell. This excellent turnout proved a problem, and the leader apologises for what was in many ways an unsatisfactory day.

At Birgham Wood, a species-rich bank by the wood had just been mown, but a few stems of Orpine *Sedum telephium* still stood under a Turkey Oak *Quercus cerris*. Both are introductions. The roses were awarded a little attention and proved difficult. Good *Rosa canina*, an infrequent species, was seen with *R. caesia subsp. caesia*, *R. mollis* and *R. x dumalis*, but some other hybrids were undetermined. At the top of the lane, a small colony of Agrimony was checked out as *Agrimonia eupatoria* and not the rare *A.procera*. Part of the wood is mature Oak with some Birch, and here an amazing quantity of

Wintergreen *Pyrola minor* was admired, but the flowers were all over. Giant Bellflower *Campanula latifolia* was seen in flower.

Wet parts of the rides were the habitat of Corn Mint *Mentha arvensis*, now almost never met with in arable fields. Access to the mire area of the wood proved challenging, but most members reached the colony of Melancholy Thistle *Cirsium heterophyllum* to find it gone to seed. We settled for lunch near beds of Greater Pond-sedge *Carex riparia* while the leader foraged further to find the hybrid Horsetail *Equisetum x litorale* with a very unexpected Yellow-sedge, probably a large, shade- form of *Carex demissa*.

At Dunglass Wood an improbable colony of Northern Bedstraw *Galium boreale* was located beside a ditch, with most welcome and unexpected colonies of Twayblade *Neottia (Listera) ovata* and Spotted-orchid *Dactylorhiza fuchsii* nearby. In the wood itself, more Wintergreen was seen with Oak Fern *Gymnocarpium dryopteris* and the hybrid Cinquefoil *Potentilla x mixta*.

A final stop was made by the Leet Water in Coldstream. Plants seen there included Fool's Parsley *Aethusa cynapium*, Hybrid Ragwort *Senecio x ostenfeldii*, Martagon Lily *Lilium martagon* and Club-rush *Schoenoplectus lacustris*. However the meadow which was the main object of the walk had been mulched a few days before and no plants of interest were seen there.

Michael Braithwaite

Another perspective

There are always members with varied interests at our walks, and diversions from the main event will always happen. A few fungi were of interest, including Flowers of Tan *Fuligo septica*, my first Slime Mould of the summer. Chanterelles *Cantherellus cibaria* were scattered under the Oaks and Birches in Birgham Wood and the smell of marzipan enabled identification of *Russula laurocerasi*. Jackie and Mary, as always, were looking for smuts, rusts and blights with some success.

The woodland field layer was full of Shaded Broad Bar moths and Green-veined White butterflies. The hoverflies *Syrphus ribesii* and *Helophilus pendulus* were frequent, nectaring on the umbellifers. We were delighted



Comma Butterfly

to find a Forest Shield Bug *Pentatoma rufipes* and a Four Banded Longhorn beetle *Leptura quadrifasciata*, both appropriately shaped. The swampy woodland in the corner of Birgham Wood had many Common Blue

Damselflies and, for many of us, the first Emerald Damselflies and Common Darters of the season.

We were entertained at lunch by a Great Spotted Woodpecker and its juvenile giving vociferous alarm

calls from the topmost branch of a dead tree in the swamp. Further evidence of breeding progress came from eggshells of Pheasant and Woodpigeon and the alarmed chatter of Wrens. Later, as the rain came down, a couple of young Buzzards screamed their objections to sharing Dunglass Wood with us. It had been a day full of interest and variety gladly with many new plant records to please our host, the Berwickshire recorder.

Neville Crowther

Not to mention the Comma butterfly which detained a number of photographers by the Leet Water.
Jackie Muscott

THE GLEN

7 August

Lyn Blades

According to BBC News, the summer temperatures in Moscow exceed 40°C, and smoke from forest fires keeps the Muscovites indoors. In another part of the world, there are devastating floods. However, the weather in Peeblesshire has not caught the attention of the world's Press this summer, perhaps because it defies global warming by remaining reliably cloudy and damp. Although not ideal for naturalists interested in butterflies and the like, mild, damp weather in late summer spurs the fruiting of fungi, and, for most of those on this excursion, the Glen estate provided their first view in 2010 of large numbers of Boletes, plus *Russula*, *Amanita* and other fungal genera.

The walk also provided views of Glen House itself, admired by the Society members while they were denuding the estate's Raspberry bushes and Cherry trees of their fruit. As the group moved on, an avenue of mighty Douglas Firs seemed longer than it actually was, the appearance of additional length being given by the pillars of an old portico, placed at the end of the avenue, now a memorial shrine to two members of the Tennant family who died relatively young.

From this rather sad place, we followed the course of the Quair Burn toward Loch Eddy, finding Larch Ladybirds and hundreds of young pheasants en route. The loch was created to provide fishing for the estate and its guests, and the road ended at an ornate and well-maintained fishermen's bothy-cum-boatshed. Half the party retraced their steps along the path we had followed to the loch, while the remainder climbed towards a parallel estate road via an ever-diminishing moorland track. The fungi were particularly rich on this higher section of the walk, the Birch woods providing a large Orange Birch Bolete *Leccinum versipelle* and the Pine woods some tasty



Larch Ladybird
(No spots)

looking *Ceps Boletus edulis*... slices of this are drying outside in the sun as I write. A long and satisfying walk ended by the estate farm buildings where some of our cars awaited us, the remainder being in the car park of Traquair Kirk.

Jean Murray tells me that our predecessors of long ago enjoyed a more splendid end to their excursion. Their charabanc had taken them to a neighbouring glen, probably Glen Sax, from which they climbed over the hills into the Glen estate, ending their walk by being feted in Glen House itself before the charabanc turned up to take them home. Unfortunately, the Excursion Committee was unable to make similar arrangements on this occasion,

The Buildings of Scotland – Borders by Cruft, Dunbar and Fawcett, gives some information on The Glen's buildings. The estate was purchased by an industrialist, Charles Tennant, in the mid-nineteenth century. His wealth came from the St Rollox chemical works in Glasgow, whose polluting smoke was taken as high as possible by the tallest chimney in the city. David Bryce was the architect commissioned to replace the 18th century farmhouse with something more impressive, and Bryce's designs of 1854 were supplemented by his six-storey baronial tower in 1874. Further additions were made by Sir Robert Lorimer around 1905. The buildings in the estate are ornamental as well as functional and include what were originally estate workers' cottages, a schoolhouse for the workers' children, a farm, stables, dairy, piggery, cart-sheds and kennels. The memorial mentioned earlier in this article was originally the portico of a house designed by William Playfair in 1822, and its engraved coloured glass is inscribed 'Like bright shining comets they burnt out so young touching everyone they met'. In memory of Charles Tennant 1957-1996 and Henry Tennant 1960-1990.

David Adamson

GORE GLEN COUNTRY PARK

14 August

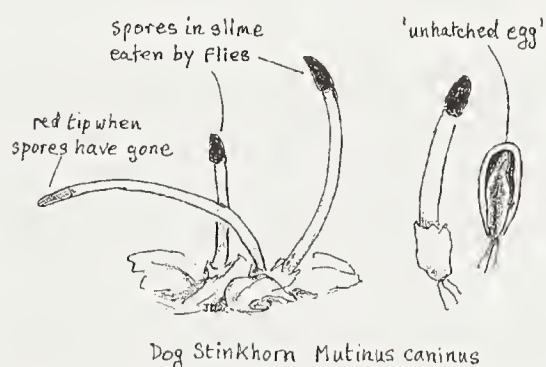
Neville Crowther

The mixture of flowering herbs around the car park was alive with insect life as we assembled for the walk. The umbellifers, in particular Hogweed *Heracleum sphondylium* and Angelica *Angelica sylvestris*, seemed to attract dozens of species: scores of both Yellow Abdomen flies *Bradysia bicolor* and Soldier Beetles *Rhagonycha fulva* peppered the umbels: there were also many common hoverflies including several species of *Syrphus*, *Episyrphus* and *Helophilus*. Four species of common bumblebee *Bombus* spp., wasps *Vespula* sp. and the sawflies *Tenthredo arcuata* and *Rhogogaster viridis* visited the Wild Teasels *Dipsacus fullonum*, Knapweeds *Centaurea nigra*, Foxgloves *Digitalis purpurea*, thistles *Cirsium* spp. and Yarrow *Achillea millefolium*.

Eighteen in our party, including welcome friends, Jean and Andrew Gilchrist visiting from the far south, set off downhill through the woods. Any hope of moving speedily was thwarted by the discovery of many woodland fungi. On a patch of wood chips were several Dog Stinkhorns *Mutinus caninus*.

Several *Russula* and *Lactarius* species were noted, as were Wood Mushrooms *Agaricus sylvaticus* and Earth balls *Scleroderma citrinum*. A Larch Ladybird *Amphidecta oblitterata* fooled most of us because of its shape and unspotted elytra. Down at the bridge over the South Esk we found the Ink Cap *Coprinus lagopus*, which almost made us miss the inevitable Dipper.

Walking a few score metres upstream to a confluence we left the Esk and followed the Gore Water, observing in clearings several striking yellow and black ichneumon flies *Amblyteles arnatorius*, Forest Shield Bugs *Pentatoma rufipes* and many more of those insects seen last at the car park. Two colourful leaf beetles were found as we followed the riparian broadleaved woods upstream: on Alders the emerald-green *Chrysomela alnea* and on Goat Willow a deep-maroon-red species.



Having passed under the A7, we broke out of the trees onto a large area of herb-rich grassland. Here we had lunch. These meadows were alive with several types of grassland Lepidoptera: Meadow Browns, Ringlets plus Common Blues, Large, Small and Green-veined Whites and even a few diurnal moths such as Yellowshells and Six-spot Burnets. Hoards of Common Green Grasshoppers *Onocestus viridulus* went ping-pong around as we walked through the grass. The flowering herbs were colourful and varied with Perforate St John's Wort *Hypericum perforatum*, Mouse-ear Hawkweed *Pilosella officinarum*, and Centaury *Centaurea erythraea* particularly notable. Many as yet unseen insects continued to be discovered: Pollen beetles *Meligethes* sp. scurried around among the stamens of larger composites and three attractive hoverflies, Dainty *Leucozona leucorum*, Blue *Leucozona glauca* and Large Bog *Sericomyia silentis* were busy feeding.

Moving up towards the reclaimed summit of the bog, we found a now spacious and well used sports field. Crossing its edge we followed the Birch woods back towards the road. It was here under the birks that we found the real treasures of the site - many square yards of

Round Leaved Wintergreen *Pyrola rotundifolia* sprinkled with Broad Leaved Helleborines *Epipactis helleborine* all in flower.

Butterfly Bushes *Buddleja davidii* growing against a house wall attracted Red Admiral, Small Tortoiseshell, Comma and Peacock butterflies. We even followed this feast of colour photography with a feast of wild strawberries before setting off back to our vehicles.

Neville Crowther

ABERLADY BAY

21 August

Neville Crowther

Twenty three members met at the wooden bridge over the Peffer Burn. There was a chance meeting there with our counterparts from Glasgow, led by Ian McCallum. The tide was out, and Redshanks, Curlews and Oystercatchers were the predominant waders on the mudflats. By the time we had walked a few minutes the party had fragmented into several groups in typical Nats fashion.

Although the orchids had all gone to fruit, the Grass of Parnassus *Parnassia palustris* was in fine form, with stunning stands in the wet grassland. A knowledgeable member pointed out how the stamen succession shown by the flower ensures that pollen production continues for most of the flowering period. The rare Marjoram *Origanum vulgare* was flowering well too, as was the pretty Rest Harrow *Ononis repens*. Most of the Ragwort *Senecio jacobaea* was eaten down by Cinnabar caterpillars, and Viper's Bugloss *Echium vulgare* was past its best. Corn Marigold *Glebionis (Chrysanthemum) segetum* and Knotted Pearlwort *Sagina nodosa* were both surprise discoveries.

Near to the Marl Loch, where a few red and blue damselflies patrolled, we spotted Bogbean *Menyanthes trifoliata* and the Water Parsnip *Berula erecta* in a place where Snipe were flushed and Nodding Thistles *Carduus nutans*, now far fewer than a decade ago, lived up to their name. The Hawthorns beside the path harboured Stonechats and Reed Buntings, both species struggling to maintain numbers in recent years.

In order to let the party regroup, we took our lunch by a recent dune where the slacks before us were a sea of colour from swathes of cream Grass of Parnassus to purple Felwort *Gentianella amarella*, while Common Centaury *Centaureum erythraea* added a dash of pink to the palette, as did the tiny Sea Milkwort *Glaux maritima*.

Skirting the embryo dunes with their pioneer species of Sea Sandwort *Honckenya peploides*, Prickly Saltwort *Salsola kali* and Sea Rocket *Cakile maritima*, we came across a flock of Sanderlings, whom we escorted for

almost a mile along the beach to Gullane Point. We were enchanted by their non-stop activity. A squad of 17 Common Scoters wallowed on the sea. A lone Golden Plover watched us from the rocks, perhaps six weeks earlier than expected. We followed the track back over the hillock through heavily laden Sea Buckthorn bushes, to cross the now almost deserted golf course. A final curiosity was still in store, as Sue found a spectacularly colourful caterpillar of the Grey Dagger moth on a Hawthorn. It had been well photographed by the time we turned our backs to recross the bridge. Aberlady is always good value.

Neville Crowther

MELDONS WALK

28 August 2010

David Adamson

Despite the weather forecast warning of heavy rain showers on a cool north-west wind, twelve members of the Society assembled at the information board by the roadside between Black and White Meldon. Four years ago Sandra Stewart commented upon the "amazingly messy group of campers beside the burn". Nothing has changed, except that the unsightly rubbish left by campers has accumulated and the "convenient conveniences" have been closed due to persistent vandalism. It was a relief to walk into Harehope Forest, away from the campers' debris of plastic bags, broken bottles, and much worse.

The Meldon Hills themselves are covered by bracken, grasses and heather. The sheep ate the more interesting plants long ago, but the open ground at the sides of the forestry paths is relatively un-grazed. In places the habitat resembles that of Highland mountains, with lichens and club-mosses thriving and occasional sedge-dominated flushes. The first part of our walk followed the route of Eric and Eileen Perry's excursion of 2006. The natural history interest was very wide, from the Yellow Flan *Spathularia flavida*, small spade-like fungi growing under larch, to Common Hawker dragonflies *Aeshna juncea*, some cuckoo bumblebees *Bombus sylvestris*, and many Red Admiral, Peacock and Small Tortoiseshell butterflies. After lunch we took a forestry track to Harehope Forest West, passing a small pond where Vladimir, who had gone ahead, saw an unusual raptor. Further on we found Pale Sedge *Carex pallescens*, a woodland-margin sedge, in a base-rich flush, came upon thriving colonies of Alpine Clubmoss, *Diphasiastrum alpinum*, Stag's Horn Clubmoss *Lycopodium clavatum* and an unusual liverwort that Jean Murray noticed growing in a pathside ditch. Jean Long found dead grasshoppers, perhaps parasitized, clinging to grass stems. We admired a spherical wasps' nest, but no-one was sufficiently enthusiastic to check whether it was occupied.

A short walk down a forest ride led to a large Iron Age settlement, very evident from the concentric circular embankments and ditches. It was excavated in 1960, and the archaeologist concluded that the site had been occupied continuously from around 400 B.C. to 100 A.D. The defensive banks had been topped with a wooden palisade and the circular houses within the enclosure were also wooden, testifying to an abundance of timber at that time. A piece of mediaeval pottery and a flattened quern stone were the most significant artefacts found during the excavation.

As we returned to our assembly point, a group of us watched Crossbills picking at cones, and noted that the cuckoo bumblebees outnumbered all other species feeding on the flowers of Lesser Knapweed *Centaurea nigra*. Finally, moving from natural history to the kitchen, Ena collected a couple of Ceps *Boletus edulis* for her evening meal, having eyed them at the very start of the walk.

David Adamson

Postscript: Jean Murray reports that the liverwort was *Blasia pusilla*, a species that both she and Jackie have found in Saltoun Forest, East Lothian. A slight habitat disturbance is often sufficient to eradicate it, when more robust species would survive. Small dark dots on its leaves are blue-green algae. In addition to finding black smuts on the fruits of both Glaucous and Carnation Sedges *Carex flacca* and *C. panacea*, Jackie identified a scarce species of Ergot *Claviceps nigricans*, on the flower spikes of Common Spike-rush *Eleocharis palustris*.

Finally, Jackie and Jean Long gave an unrehearsed talk about the uses to which Clubmoss spores have been put in the past. Jean referred to the Oxford Book of Flowerless Plants which describes the spores as producing a very fine yellow powder, once used as a constituent of 'flash powder' in fireworks and by pharmacists for coating pills. Jackie recalled a piece of apparatus used at school to demonstrate sound waves. 'It was a horizontal glass tube, closed at both ends, with lycopodium powder inside. If a tuning fork was struck close to one end, the powder arranged itself in waves. It was called a Kuntz tube... but nobody dared laugh; we were all terrified of the Physics teacher.'

PHILIPHAUGH

4 September

Jean Murray

Already known as one of the access routes to the Three Brethren, the estate has recently created more marked paths and produced an excellent information leaflet. The opening of the Waterwheel Cafe beside the salmon-viewing station has made it a popular place to visit, and it

was there that nine of us met. No one realised they had driven past the site of the Battle of Philiphaugh, where, on 13th September 1645, Montrose and the Royalists were defeated by the Covenanter army. The laird later sought compensation of £12,000.

The plan was to walk up on to Harehead Hill. A rough track through Sitka Spruce yielded disappointingly few fungi, and a more open piece of woodland was little better: it had been dry. Once we reached more open country we diverted from the marked route. All this time we had been steadily climbing. It was a clear, warm day, and so the views back to Selkirk and further up the Yarrow valley were glorious.



Amanita crocea
Orange Grisette

After going alongside fields - there were young Pheasants in one - we arrived at another conifer plantation. The party was, as usual, strung out so eventually three of us decided to start lunch where there was a view and wait for the others to catch up. Mary Clarkson had found her pet mushroom of the day *Amanita crocea*, the Orange Grisette.

It took no time after that to reach the gate out onto Harehead Hill. I hadn't walked quite that far previously and was pleased that the grassland turned out to be interesting. Earlier in the season the slopes would have been bright with Rock Rose *Helianthemum nummularium*. While some happily searched around for plants and grasses common in that habitat, two climbed to the trig. point, keeping a careful eye on the cows with young calves. It was good to spend time in the sun, picking out landmarks such as Bowhill and Newark Castle below and sorting out the hills to the west. One with cairns - not grouse butts as I first thought - was Foulshiels Hill, the area where Mungo Park was born.

We decided to trot back down to the cafe in time for tea. More butterflies were out now, both Large and Small White, Small Copper and a Peacock. We passed an estate worker on a quad bike going to feed young pheasants. He called them to the gate using a piercing whistle and they came running.

We rounded off with a stroll to the cauld (weir) but were too early for the main September salmon run. However on a smooth stretch, near the meeting place of the Yarrow and Ettrick, Wilma spotted a Kingfisher flying

up river. We waited and saw it come back down again. The flash of blue was unmistakable. What a way to end the day!

Jean Murray

THE TETLEY TRAIL

11 September

Mary Clarkson

A good number of Nats gathered at Portmoak Church, Scotlandwell, ready to set off down the road on the Tetley Trail, so called because the tea company provided some of the initial funding. The steep roadside verge is floristically quite rich, and, though it was late in the year, the leaves of Hairy Violet *Viola hirta* and Greater Stitchwort *Stellaria holostea* were recognisable, while Autumn Hawkbit *Scorzoneroïdes* (*Leontodon autumnalis*) was still in flower.

Then it was up the hill into Kilmagad Wood, past Rowans laden with berries, a patch of Climbing Corydalis *Ceratocapnos claviculata* and a Wren trilling away. Kilmagad is an old wood which had been degraded by grazing and browsing but is now owned jointly by the Woodland Trust and the local Community Woodland Group, who are trying to restore it to good health.

Presently we came to an area of open hillside with Bracken and splendid views. Here there were also a few more flowers: Bell heather *Erica cinerea*, Harebell *Campanula rotundifolia*, Yarrow *Achillea millefolium* and, in a damper area, its relative Sneezewort *Achillea ptarmica*.

Then it was down the hill and across the road en route to the next wood. The path now led us past turf fields on the edge of which were some interesting weeds. It's always a delight to see the little Field Pansy *Viola arvensis*, and, though neither Annual Nettle *Urtica urens* nor Black Bindweed *Fallopia convolvulus* has very attractive flowers, they are both becoming uncommon.

At last we were into Portmoak Wood, and our leader was in her element identifying fungi. We got off to a good start with Fly Agaric *Amanita muscaria* which everyone recognises from the children's books. Other *Amanitas* included The Blusher *A. rubescens* and quantities of the elegant reddish-brown Tawny Grisette *A. fulva*. Brightly coloured *Russulas* included the Ochre *Russula*/Brittlelegill *R. ochroleuca* and the bright-red Sickener *R. emetica*.

Stink Horns *Phallus impudicus* were smelt out, and Earth Balls *Scleroderma citrinum* were examined by the path. A good many 'wood-rotters' were getting to work on dead trees and stumps, the most conspicuous being two brackets found on Birches – the Birch Polypore/Razor Strop Fungus *Piptoporus betulinus*, which is widespread,

and the well-named Hoof Fungus *Fomes fomentarius*, which is uncommon on Birches south of the Forth.

Perhaps the most interesting find was a specimen of Bearded Milkcap *Lactarius pubescens*, which didn't look 'quite right'. It turned out to be infected by another fungus *Hypomyces spadiceus* which attacks Milkcaps belonging to the *Lactarius torminosus* group (which are all more-or-less hairy particularly on the margins). *Hypomyces spadiceus* is not at all common, and our specimen was identified by Prof. Roy Watling.

Another interesting find, in a damp spot in the wood, was a stand of Wood Small-reed *Calamagrostis epigejos*, a tall, beautiful grass which is apparently on the increase in Fife.

Portmoak Wood was planted by the Forestry Commission in the 60's on an ancient, lowland raised bog. It had previously been a source of peat for the local population, and some very deep cuttings can still be seen there. Like Kilmagad, it is now in the hands of the Woodland Trust and the local Community Woodland Group, who are trying to restore the bog by blocking drainage ditches and cutting down trees. There is now a large open area with surviving heath and bog plants, and it was here we encountered the only insects of the day: a couple of Peacock butterflies and a Common Hawker dragonfly.

There were not a lot of birds around, but, as we returned to the cars, the inevitable Buzzard was mewing above the wood, and Swallows were flying above the village.

Jackie Muscott

SALTOUN FOREST FUNGUS FORAY

18 September

Mike Richardson

Saltoun Forest has a good variety of habitats: young and mature broad-leaved trees; conifer plantings of differing ages; a pond and areas of scrub. With an expert leader to identify our finds and give all sorts of biological tips to help to fix the species in our minds, we looked forward to an interesting day - and we were not disappointed. The weather had been very dry, which made finding specimens difficult and identifying them even more so. Moreover, there had recently been felling and cutting back of branches, and so gaining access to some areas was interesting, to say the least. The big plus was that we were blessed with beautiful sunny weather, and to be out of doors on such a day was a joy.

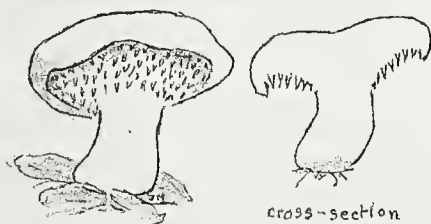
We started off through an area where there was a lot of Birch, where there had been some felling and which did not look promising. However, there was a good variety of familiar species, Fly Agaric *Amanita muscaria* with its red-spotted cap,



Black Bulgar *Bulgaria inquinans*

Ochre Brittlegill *Russula ochroleuca*, Birch Polypore *Piptoporus betulinus* and Brown Rollrim *Paxillus involutus*. The first treat was on a large deciduous log lying by the path which was covered with black jelly-like 'buttons'. This was Black Bulgar *Bulgaria inquinans*, whose spores, unusually for an Ascomycete, are black.

An area of young Beech yielded many specimens of Beech Milkcap *Lactarius blennius* with its zoned greenish cap, the red Beechwood Sickener *Russula nobilis* and Blackening Brittlegill *Russula nigricans*, well and truly living up to its name. Conifer plantations gave us Larch Bolete *Suillus grevillei*, Yellow Stagshorn *Calocera viscosa* on top of stumps, and the wood-rotting Common Rustgill *Gymnopilus penetrans* on logs and branches lying on the ground. On the paths and ditches alongside, we found Weeping Widow *Lacrymaria lacrymabunda* oozing her black 'tears', Wood hedgehog *Hydnum repandum* with teeth instead of gills and The Miller *Clitopilus prunulus* like a kid glove to touch but smelling strongly of meal.



Hedgehog Fungus (white or pink with spines instead of gills or pores)

Not many birds were seen but Buzzard and Jay were heard, and we were pleased to find a great

many 7-spot Ladybirds. Flowering was over for most plants, but there were still blooms on Common Knapweed *Centaurea nigra* and Devilshit Scabious *Succisa pratensis*, and they attracted the final treat of the day: numerous Comma and Peacock butterflies. Our thanks go to Mike Richardson for leading another excellent excursion for us.

Mary Clarkson

BOWHILL COUNTRY ESTATE

23 September

Sam Ranscombe

I was delighted to welcome the Nats to Bowhill, as a particular thank you for supporting my studies last year during my BTCV Natural Talent Apprenticeship in mycology. I now work as a full-time countryside education ranger at Bowhill, flying the flag for fungi whenever possible.

We had a terrific afternoon exploring the grounds of Bowhill House and investigating the mixed woodlands for fungi. Despite it being a cool wet day, 20 enthusiastic members attended,

I led a beginners' group, starting with a short talk, explaining what fungi are, what they do and why they are important. Maps showing recommended areas were provided for the non-beginners, and we all met again at the Visitor Centre for lunch and to share our findings.

Thankfully, the estate was in full fruit, and in two hours the beginners made it only as far as the car park! We discovered why the mushroom got its spots by using a balloon and some tissue paper to demonstrate universal and partial veils at work and found some spectacular Fly Agarics right on cue.

We found fungi of all shapes and sizes: some with gills, pores and teeth, some on soil, wood and leaves and some with milky liquid in their caps. We learnt the differences between puffball, earthball and earthstar and how they use different strategies for spore dispersal.

One of the most interesting species of the day was a parasitic ascomycete *Pycnostysanus azalea*, which was making short work of the Rhododendron buds.

FUNGI AT BOWHILL SEPTEMBER 2010

Fly Agaric	<i>Amanita muscaria</i>
Blusher	<i>Amanita rubescens</i>
Bulbous Honey Fungus	<i>Armillaria gallica</i>
Cep	<i>Boletus edulis</i>
Yellow Stagshorn	<i>Calocera viscosa</i>
Fragrant Funnel	<i>Clitocybe fragrans</i>
Trooping Funnel	<i>Clitocybe geotropa</i>
Clouded Funnel	<i>Clitocybe nebularis</i>
Butter Cap	<i>Collybia butyracea</i>
Earthy Powdercap	<i>Cystoderma amianthinum</i>
Wood Hedgehog	<i>Hydnum repandum</i>
Parrot Waxcap	<i>Hygrocybe psittacina</i>
False Chanterelle	<i>Hygrophoropsis aurantiaca</i>
Sulphur Tuft	<i>Hypholoma fasciculare</i>
Amethyst Deceiver	<i>Laccaria amethystina</i>
The Deceiver	<i>Laccaria laccata</i>
Beech Milkcap	<i>Lactarius blennius</i>
Orange Milkcap	<i>Lactarius aurantiacus</i>
Woolly Milkcap	<i>Lactarius torminosus</i>
Ugly Milkcap	<i>Lactarius turpis</i>
Brown Birch Bolete	<i>Leccinum scabrum</i>
Parasol Mushroom	<i>Macrolepiota procera</i>
Wood Blewit	<i>Lepista nuda</i>
Common Puffball	<i>Lycoperdon perlatum</i>
Collared Parachute	<i>Marasmius rotula</i>

Lilac Bonnet
 Stinkhorn
 Rhododendron Bud Blast

 Tar Spot
 Beechwood Sickener
 Purple Brittle-gill
 Geranium Brittle-gill
 Blackening Brittle-gill
 Ochre Brittle-gill
 Common Earthball
 Conifer Blueing Bonnet
 Candle snuff

Mycena pura
Phallus impudicus
Pycnostysanus azaleae
Rhytisma acerinum
Russula nobilis
Russula atropurpurea
Russula fellea
Russula nigricans
Russula ochroleuca
Scleroderma citrinum
Postia caesia
Xylaria hypoxylon



Marasmius rotula (1-2 ins high)

Sam Ranscombe

MORTON LOCHS & TENTSMUIR

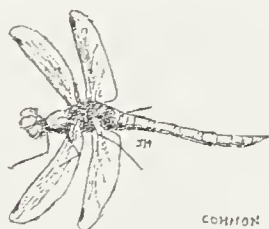
25 September

Wilma Harper

Originally planned for The Hermitage at Dunkeld, our excursion had to be relocated because of a car rally there. Wilma did well to find such an excellent alternative venue, rearranging everything at short notice, and notifying everyone in time.

The morning, started well: dry, with a northerly wind and some sunshine. While watching Pink-footed Geese overhead and Long-tailed Tits and Goldcrests in the trees, I heard a noise above, saw some twigs falling and called to the others to stop. My calling must have disturbed them, for two Red Squirrels then showed themselves ... a good start.

We set off along the old railway line towards the first hide. En route, the following were seen/heard: Buzzard, two Swallows, Wren, Grass of Parnassus *Parnassia palustris*, a couple of dead Pigmy



COMMON DARTER

Shrews, Field Scabious *Knautia arvensis*, Watermint *Mentha aquatica*, a few bumblebees and hoverflies (not identified) and

bright red male Common Darters *Sympetrum striolatum* sitting sunning themselves on the fencing at the hide.

We retraced our steps, passing the main loch and on towards the links and dunes. Walking through the forest we passed Japanese Larch *Larix kaempferi* and Corsican Pine *Pinus nigra* and Scots Pine *Pinus sylvestris* Pine. Both the latter had been attacked by Red Band Needle Blight, *Dothistroma septosporum*, a fungal disease which attacks the needles leaving them sparse and red-banded. It was thought that Scots Pine was resistant, only Corsican Pine being vulnerable, but this was evidently not the case. The disease appeared in the late 90s and has gradually spread northwards. Along the forest trail, we saw a Treecreeper and a pair of Goldcrests: a Dabchick was heard from the nearby loch.

Because of the dry autumn, there were not many fungi, but worth a mention were: *Pluteus cervinus*, with a rich brown cap and pink gills which feeds on dead wood; *Inocybe geophylla* a white agaric with an umbonate cap and a distinctive mealy smell; a colour variety of the same species *var. lilacina* with a purple cap and the same smell; the Deceiver *Laccaria laccata*, very variable in colour (chestnut to pink to pale brown), with broadly spaced pink gills. Out on the sandy links were found lots of Parasol fungi *Macrolepiota procera*, excellent eating. Late in the afternoon, we found Chanterelles *Cantharellus cibarius* on the coastal heath ... a strange habitat for this lover of Beech and Birch.

The oldest part of the Tentsmuir system is the dunes which were formed some 4,000 years ago. In 1906, the Christie family created the lochs and stocked them with trout. In 1952 the area was designated an NNR for its breeding and wintering wildfowl. The forest was planted in 1955. On the links, rabbits were farmed by warreners for their meat.

After moving onto the open dunes, we walked along a drainage ditch, where we found the following: Puff Balls *Lycoperdon nigrescens* (*foetidum*) and Sulphur Tuft *Hypholoma fasciculare*. At least 80 Common Darters were seen, mostly males, but some, in 'wheel formation' (copulation) prior to flying in tandem to lay eggs - the males hovered over the water surface dunking the female repeatedly.

There were also a few Black Darters *Sympetrum danae* and at least two Common Hawkers *Aeshna juncea*. A few frogs were present, several Small Copper butterflies *Lycaena phlaeas* and a Sexton Beetle *Nicrophorus investigator*. On the banks, we found a stand of the declining species Hare's Foot Clover *Trifolium arvense* in fruit. In the ditch, Purple Loosestrife *Lythrum salicaria* was found among the Reed-mace *Typha latifolia*, Yellow Flag *Iris pseudacorus*, and Sneezewort *Achillea ptarmica*. Overhead Buzzards were circling and mewing.

We had lunch in the main hide, and suddenly, what a joy! While we munched our sandwiches, an Otter appeared, right in front of the hide, and having his lunch too a large European Eel *Anguilla anguilla*. A Kingfisher zipped past, and later, at the other hide, another was seen perched on a branch. Five Greenshanks flew in after the Otter disturbance, and we saw about 50 Teal, several Dabchicks, Redshank, Coot, Moorhen, and Greylag Geese.

To end the day, we drove round to Lundin Bridge to explore the Tentsmuir Heath. Walking along the road, we saw a lovely flock of about 50 Peewits in a ploughed field. The treeline here was planted in 1937, then more



trees were planted behind the originals in the 60s. Looking out over the Tay, we saw around 50 Wigeon, about 1,500 Eider (predominantly males), a roost of Cormorants and

miscellaneous gulls on the water. Finally, on the grass, just by our cars, there were Skylarks, a small flock of Linnets, a few Goldcrests and a Pied Wagtail

Thanks are due to Wilma for organising an enjoyable excursion and to Neville for his contributions to these notes.

Joanie McNaughton

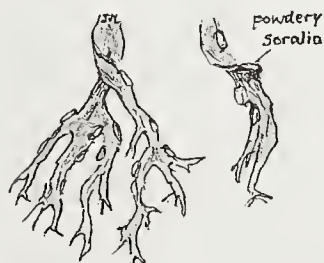
WOODHALL DEAN

2 October

Chris Ellis

A group of 14 assembled by the ford at the Brunt to follow Chris Ellis on this Lichen foray. Rebecca played a strong supporting role in lichen identification and in occasionally carrying young Simon when the going got difficult.

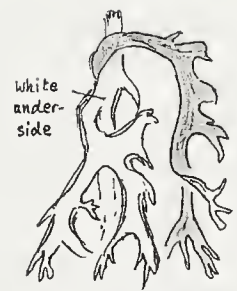
We made very slow progress initially through the mature woodland dominated by Oaks and Ashes, as many corticate crustose and leprose lichens caught our interest. The leprose ones were the bright yellow *Chrysothrix candelaris*, and grey-green *Lepraria incana*. Neither had fruiting bodies, the thallus being entirely powdery, the former usually on Oak and the latter on sheltered trunks



grey on both sides
Ramalina farinacea

and rocks. The smooth-barked Ashes and Rowans often had crustose species completely covering the bark. Chief among them were *Lecidella eleaochroma*, *Lecanora chlorotera* with pinkish apothecia with a white rim, *Opegrapha vulgata* and *Arthonia radiata*.

On Hawthorn we found a number of grey-green lichens with a fruticose (shrubby) appearance: on smaller twigs and young branches *Evernia prunastri* and *Ramalina farinacea*, which both have flattened strap-like lobes; and higher up *Usnea subfloridana*, the Beard Lichen. *Evernia* has broader 'straps', with a grey upperside containing photo-synthetic algae, and a white underside without algae, so strictly speaking it's foliose (leafy), but it usually appears in both the fruticose and foliose keys. *Ramalina* has narrower concolorous 'straps' with algae all round, while *Usnea*, as the English name suggests, has fine tubular lobes with a tough central cortex.



Evernia prunastri

Foliose lichens included *Parmelia sulcata*, blue-grey with narrow white cracks, plus the closely related *Hypogymnia physodes* and *H. tubulosa*. *H. physodes* has flat lobes which turn back at the tips to produce powdery soredia while *H. tubulosa* has upright tubular tips with soredia forming on the closed ends.



Hypogymnia physodes

There were few fungal fruiting bodies visible, but, on leaving the scrub and entering the open, mature Oak woodland, we found dozens of large golden agarics, which I remember Mary Clarkson identifying in 2006, as *Cortinarius triumphans*. The only other memorable fungus was a giant Common Parasol *Macrolepiota rhacodes* growing, half hidden, beneath Whins near the high point of the reserve.



Hypogymnia tubulosa

We sat in the weak but pleasant sunshine on and around one of Phil McInnes' benches, lunching and being entertained by Simon, our youngest member. The red-sandstone dyke behind our lunch spot had an impressive array of crustose and foliose lichens, completely obscuring the colour of the rock. The dominant ones were the whitish *Lecanora rupicola* and *Ochrolechia parella*, the yellow of *Caloplaca cf. holocarpa* and more frequently the *Xanthoria parietina*, which everyone knew. Inevitably the apple-green *Rhizocarpon geographicum* was present, and the grey and rust-coloured crusts of *Lecidea cf. lithophila* were quite frequent.

We walked onwards to the high point of the circuit, with stupendous views to seaward of North Berwick Law, the Bass Rock and the distant Isle of May. Inland loomed the tops of the wind turbines newly erected on Crystal Rigg.

On reaching the new bridge at Tinkers Leap, we searched the conglomerate gorge walls for the rarest species on the reserve, prominent in the SSSI citation and called *Gyalecta ulmi*. We were delighted to be successful due to the expertise of Rebecca and Chris. The abiding impression was of a crustose lichen made of 'green wine gum jelly' with tiny lecanorine apothecia (fruiting bodies like tiny jam tarts).

Beneath a large branching Oak we arrived at a well-known Badger sett surrounded by radiating tracks. There were numerous entrances, and heaps of old bedding and on the trunk above a large pale green crustose species *Flavoparmelia caperata*? Further on, we found, growing in fractured cracks of some damaged Oaks, a Pin lichen *Chaenotheca* sp. from the appearance of its black apothecia.

Returning to the car park with minds sagging under the weight of new names and terminology, we had to agree what an excellent day it had been. Thanks to the Ellis family for both educating and entertaining.

Neville Crowther

DEEPSYKE FOREST

13 November

David Adamson

An intelligence operation some two weeks before the outing had not been promising: the terrain was sodden and lacked items of natural-history interest. Nevertheless the determination and grit for which the Society is famous triumphed over the November gloom, and 15 troopers reported for duty at the entrance to this remote and desolate Tilhill Forestry plantation at the back of beyond. Happily, I counted them all out and I counted them all back at the end (except for the two that had left after lunch). The yomp across the most difficult terrain, consisting of treacherous green porridge, was reserved for the end of the walk. Our party had followed the one made-up path in an anti-clockwise circuit and had arrived back at the cars without casualties, whereupon we took lunch. Stragglers reported of seeing Crossbills, and had to rush their lunch. Having left our kit at our base, we boldly strode along the moor road to check on an unusual alignment tower, then reconnoitred the deep syke* itself, and kept behind the cover of the trees on our return journey.

Maps from the 1980's show no forest here; it appears to have been poor grazing land lying between the Harlawmuir burn and a large area of peat extraction. As afforestation grants were available, the landowner planted a large block of exotic conifers, mainly Sitka Spruce, Lodgepole Pine and some Larch. Sitka cannot thrive in the presence of Heather; its needles turn yellow due to nitrogen deficiency. This can be overcome by alternating the Sitka spruce with Lodgepole Pine; the Lodgepole makes nitrogen available to the Spruce.

However the different forms and growth rates of the two species of conifer can create problems when harvesting the timber. In Deepsyke, in what would have been the most heathery areas, the trees have often been planted alternately, but some Sitka spruce still show signs of nitrogen deficiency. On healthier spruce trees we saw flocks of Siskin and Goldfinch feeding on cones.

Although it lies in Peeblesshire, Deepsyke has an industrial past more characteristic of nearby Midlothian. The Ordnance Survey map shows old mine-shafts and small quarries within and around the forest. Nearby are lime-kilns, and the Coaly burn's name testifies to the area's coal-workings. The underlying rocks are Carboniferous, and the clay soil that overlies the coal, sandstone and limestone impedes drainage and helps create the sour, acid quagmire characteristic of Deepsyke. As is often the case, ground that has been disturbed by mining and quarrying can, in time, provide more natural-history interest than surrounding areas. On the spoil-heaps of an old mine-shaft were two clubmosses, Stag's Horn *Lycopodium clavatum* and the less common Alpine *Diphasiastrum alpinum*, growing along with Crowberry *Empetrum nigrum*, lichens and mosses. In a nearby ditch was the Narrow Buckler Fern, *Dryopteris carthusiana*, and on the path itself was Slender Rush *Juncus tenuis*.

In a clearing at the eastern end of the forest is an unusual tower. It is square, with a balcony and a chimney-like feature. In some respects it resembles a church-tower with a miniature steeple. However it was built for the mundane purpose of checking the alignment of the aqueduct from Talla to Glencorse Reservoir as it crosses Auchencorth Moss, its path marked by stone pillars at frequent intervals. Michael Jones advises that the damage to its west side was caused by explosives detonated by a Scottish extremist group some 40 years ago.

Nearby are Oaks and Sycamores, some bursting the brittle plastic tubes that protected them from Roe Deer when saplings. Janet Watson helped the trees by removing some of the tubes that had not burst. Two other species of conifer Noble Fir and Grand Fir, had been planted on the drier ground near the tower,

From the edge of the forest we looked across the elbow of the Harlawmuir Burn as it turns northwards to its confluence with the North Esk, and across the syke towards the line of aqueduct pillars marching across Auchencorth Moss. As it was becoming late in the short November day, any thoughts of visiting the Covenanters' refuge of Harbour Craig were put by for another season. We returned along a wet forest ride, all the time shading our eyes against the low westerly sun.

David Adamson

* syke or sike: a small stream, a gully or ditch, esp. one that fills with water after a heavy rain.

BLACKFORD HILL NATURE RESERVE

4 December

Vladimir Kritsov

Winter had only just begun, yet already Edinburgh looked more like the Highlands, with snow drifting feet deep. It had been falling hard for much of the previous week, but on the day we had clear skies and bright sunshine – perfect for a winter's walk.

We started by discussing the geology of the area. The hill itself is of Devonian igneous rocks, some 400m years old. It is one of Edinburgh's glacial crag and tail formations, created when eastward-moving ice-sheets hit the tough igneous rock of the hill and were diverted around it, leaving a tail of debris in their wake.

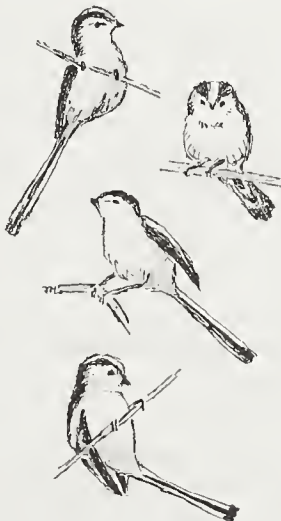
Several Chaffinches were 'pink-pinking' in an Elm as we set off down a path towards the pond. After discussing some aspects of winter identification of Wych Elm *Ulmus glabra*, Ash *Fraxinus excelsior* and Hazel *Corylus avellana* our attention was drawn to the brilliant colours of a two male Bullfinches flitting about in a tree above us, and we picked out Blue Tits, Blackbirds and more Chaffinches with them.



Male Bullfinch

Blackford Pond was all but frozen over, with the remaining water birds crowded into a small patch of open water. From a distance we trained our binoculars on them, noting Black-headed Gulls, Mallards, a pair of Mute Swans and a few Coots. A lone Greylag Goose was hauled out on the ice, honking forlornly at intervals. We wondered if something was wrong with it, but it looked plump enough and its plumage seemed in good condition. One bird on the patch of water looked particularly interesting, and, on getting a good focus on it, we were delighted to see the slightly ungainly spatula-shaped bill of what could only be a Shoveler, giving each of us a much closer view of this bird than we could ever have expected.

Moving away from the pond, we spotted first one, then, a whole party of Long-Tailed Tits, miraculously surviving in the sub-zero temperatures, and looking very lively indeed as they darted about among bushes of Gorse *Ulex europaeus*. Alongside the Braid Burn, tracks of Rabbit *Oryctolagus cuniculus*, were clearly visible in the snow and a possible spraint of Otter



Lutra lutra stood out on a rock in the burn itself, bringing to mind the Otter that had been filmed by security staff recently at Cameron Toll shopping centre, not far downstream.

Parting company with some of the group at the west end of the reserve, we struck up the valley side for the snow-bound streets of the Braids. Here we encountered some massive clumps of Pampas-grass *Cortaderia selloana*, followed by a range of evergreen hedges and conifers. The latter tested Wilma's knowledge of cotoneasters and other garden evergreens, including at least three different species still in flower! The group enjoyed contemplating such plants as *Cotoneaster simonsii*, *C. horizontalis*, Ivy *Hedera helix* and Box *Buxus sempervirens*, among many others. Heading back to the Braid Burn, we trudged through deep snow back towards the Visitor Centre. No doubt in summer it is a hive of activity, but we were the only people making use of the picnic benches, after having scraped off a foot or so of snow. A flask of lentil soup was especially appreciated that day.

Now following the Braid Burn eastwards, our next stop was Agassiz Rock. The website of the Friends of the Hermitage of Braid and Blackford Hill tells us that in 1840 the Swiss geologist Louis Agassiz recognised that the polished and striated undercut base of the cliff was the result of glacial abrasion by an overlying ice-sheet. He visited the site on 27th October 1840 with Charles MacLaren, then editor of *The Scotsman*. In 1838 William Buckland, then professor of geology at Oxford University, and Agassiz studied Alpine glaciers and realised that there were many ice-free areas which showed evidence of former ice. Agassiz then made an intellectual leap from valley glaciers to country-wide ice-sheets, and his visit to Scotland in 1840 confirmed his ideas.

Starting a walk at the top of a hill is all very well but does mean finishing with a climb. So we left Blackford Glen and climbed through the Alders *Alnus* spp. of the community woodland to the trig point and view-finder on top of the Hill. Continuing the geological theme, Corbie's Crag, just below the summit, is a small crag and tail, a miniature example of the better known one we could see – the Castle Rock and Royal Mile. From the top of the hill, the view of Edinburgh and the Lothians in the snow was spectacular. (It was a novelty then, but writing this report three weeks later and still deep in snow, that novelty has palled somewhat.) So the walk ended, heading downhill for home, past families sledging. A very different Nats outing – and great fun.

Vladimir Kritsov, Wilma Harper & Malcolm Lavery

ABERLADY

29 December

Janet Watson

Fourteen members arrived at the bridge for the walk, and another four joined us for lunch, later. It had been murky in Edinburgh, but a thin sun broke through here. The bay

was mainly frozen over, and the tide had deposited large slabs of ice at the bridge, making a most unusual sight.

Before we left the car park, a birder (not in the group) reported having seen the Green-winged Teal that had been in the Bay for some days previously. While we were scanning for it, a Merlin appeared from up river and flew past us and along the shore towards Aberlady. It turned back, perched briefly on the handrail of the bridge and flew off. Unfortunately, the Merlin must have disturbed the Green-winged Teal, which no-one in the group saw.

On the limited area available for feeding, we saw Redshanks, Grey Plovers, Curlews, Dunlins and Bar-tailed Godwits, and among the ducks there were Teal and Red-breasted Merganser. It was not a day for lingering, and so we pressed on, being rewarded with a variety of birds, including Fieldfares, Chaffinches, and Blue Tits.

There were masses of berries on the Sea Buckthorn *Hippophae rhamnoides*, but we found a Song Thrush among the bushes that had clearly starved to death. We saw a lot of Buckthorn Fungus *Phellinus hippophaeicola*, and, near the beach, among the remains of Grass of Parnassus *Parnassia palustris*, Centaury *Centaureum erythraea*, and Yellow Rattle *Rhinanthus minor*, which we had so admired on our summer visit, we found a Fox Moth caterpillar, which had somehow managed to survive the cold.

Three Roe Deer were feeding in the rough grass overlooking the golf course. On the walk back, we saw Winter Stalkballs *Tulostoma brumale*, tiny puffballs on a stalk.

Afterwards, we enjoyed a really good lunch at the Old Aberlady Inn, where, cosily ensconced in a room by ourselves, we were well looked after by the proprietor.

Janet Watson

GRANTOWN ON SPEY

14-18 June

TRAVELLING NORTH

14 June
Neville Crowther

We had arranged for a comfort stop, mid-morning, at the Loch of the Lowes SWT Reserve near Dunkeld. Remarkably, about 15 of us made it there within a few



minutes of each other. The breeding Osprey pair were brought into close and sharp focus by the new CCTV system, as were their two chicks, now almost half grown. There were lots of other diversions too: scores of Siskins in newly fledged parties swarmed around the feeders. Red Squirrels were coming and going, also eating their fill. A large flotilla of well chap eroned Canada goslings sailed across the bay in

front of the hides, and further out another stripey family party, this one of Great Crested Grebes, gave pleasure to those who could take their eyes away from the Ospreys. Departure time was called, and we crossed Drumochter in fine weather.

An hour and a half later, our lunch stop was made in the Feshie Bridge woodland picnic area, after watching another successful Osprey nest on the island where the Spey leaves Loch Insh. Many of us had our sandwiches on the hoof, watching Willow Warblers and Tree Pipits singing in the Birch trees. A female Goosander on the Feshie was watched by several of us but revealed nothing of its suspected nest and brood.

By 3 o'clock, members began to drive away, most following the scenic back road through Coylumbridge and Nethy Bridge towards Grantown. All were keen to view the accommodation at the Grant Arms and sample the food. Neither would disappoint us during the next week, and the weather too was on its best behaviour for each of the coming excursions.

Neville Crowther

ANAGACH WOOD

15 June

On the first morning of the visit to Grantown-on-Spey, several of us accepted the invitation to visit Anagach Wood close to the Grant Arms Hotel. We emerged from the hotel into the bright sunshine, well-fed and eager for the day ahead. The woodland dates back over 200 years to the

establishment of Grantown-on-Spey, and was grown from seed that had been gathered from Abernethy Forest. Anagach Wood (about 1000 acres) is owned by the community of Granton-on-Spey through a charitable trust. A proportion of the trees is managed responsibly for profit so that the woodland can remain a varied wildlife area.



Our group was led by Kirsty, the resident Wildlife ranger. Our first trophy sighting was a group of Red Squirrels at a feeding station near the entrance to the woodland. They were eager to make the most of the nuts provided and took little notice of us. Some of the party also had a fleeting glimpse of Crested Tits in the trees alongside the path. As we progressed into the woodland, we admired the abundant growth of dainty, green Chickweed Wintergreen: its binomial, *Trientalis europaea*, reportedly refers to the approximate height of the plant.....one third of a foot.



There was the occasional departure from the group by those interested in fungi but, on this occasion, the fruiting bodies were left for others to see rather than gathered for identification. The damage to the Pine trees from the heavy snowfall the previous winter was evident from the many bent and broken branches. We were told that deer often roam here.

Eunice Smith

LURCHER'S CRAG & COIRE AN LOCHAIN

15 June

Neville Crowther

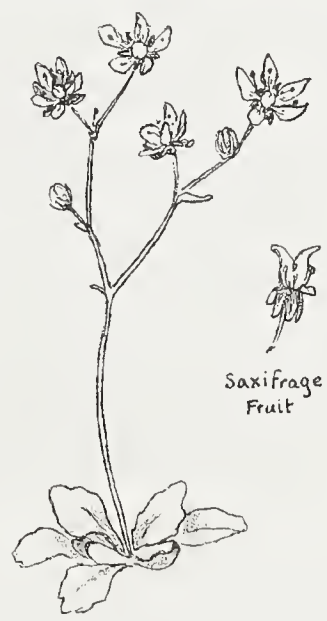
The weather dawned fair, and the projected walk to the 'tops' was on. A pleasant drive along the back roads to Coylumbridge and up to Choire Chas found 14 of us among the early birds. Our upward progress halted immediately as we crossed the Allt a Choire Chas and discovered a profusion of flowers on its banks. We were of course already at 650m and so were not attuned to species normally found so high. Cloudberry *Rubus chamaemorus* was blooming in profusion along with large stands of Dwarf Cornel *Coruus suecica*. Only a few metres further on, we stopped to examine Pine stumps preserved in the peat that had submerged them quickly during the Atlantic period, when flooding of the North Sea changed rainfall to that of a maritime climate. Then,

in the so-called Climatic Optimum, the tree-line was around 700m. Today it is down to 500m.

We began to climb gently along rebuilt footpaths that crossed the front of the Northern Corries. The paths were a revelation to those of us who had not visited the area for many years. The dominant plant of the dry heath was Ling *Calluna vulgaris*, with patches underlain by reindeer lichens *Cladonia portentosa* and *uncialis*. Other ericaceous shrubs included Blaeberry *Vaccinium myrtillus* and Cowberry *V. vitis-idaea*. Breaks were taken to admire a few Lesser Twayblades *Neottia (Listera) cordata* hiding beneath the heather and Fir Clubmosses *Huperzia selago*. We stopped for several minutes to watch an Osprey climb majestically over the plateau edge and disappear on a fishing trip perhaps to Loch Avon on the south side. The only other birds at this time were a few Meadow Pipits and Wheatears, plus several male Red Grouse, which whizzed by at head height, with their insistent 'go-back go-back' call.

As we climbed, the height and density of the Heather began to diminish, to be replaced by less well known species such as Crowberry *Eupetrum nigrum ssp. heruaphroditum*, Bog Bilberry or Whortleberry *Vaccinium uliginosum* and Mountain Azalea *Kalmia (Loiseleuria) porcuubens* with its striking, pink, star-shaped flowers and eventually by Bearberry *Arctostaphylos uva-ursi*. The hand-like leaves of Alpine Lady's Mantle *Alchemilla alpina* made their appearance, as did the creeping Alpine Clubmoss *Diplasiastrium alpinum*. We were diverted by bryophyte-rich flushes wherever the meltwaters from snow-hollows decide to erupt. The remarkable grey cushions of the moss *Anthelia julacea* often 10m wide, surrounded by the bright green of *Philonotis fontana* or the mix of *Sphagnum* species, pale green, yellow and scarlet made us tread carefully. Flowering plants here at more than 1000m included Starry Saxifrage *Saxifraga stellaris* and the often abundant Marsh Marigold *Caltha palustris*.

As we neared this contour, the slope flattened to plateau, with large banks of snow in the hollows. We began to search for the Dotterel and Ptarmigan I had rashly promised the previous winter. On the windswept tops, Dwarf Willow *Salix herbacea* was the only woody plant, with its tiny catkins hugging the ground. Other truly arctic plants here were the lichen called Iceland 'Moss' *Cetraria islandica*, Three-Leaved Rush *Juncus trifidus*, Stiff Sedge *Carex bigelowii* and grey-green blankets of the moss *Racomitrium lanuginosum*. Suddenly, botany was left on standby as Ian found our



first brood of Ptarmigan chicks and another adult, wings white and whirring, whizzed past Tom's bunnet. Within 20 minutes another brood of five and as many adults were found, all, when immobile, virtually invisible. Then, about 600m away, on the edge of the Lairig Ghru, a small group of birders with telescopes raised our curiosity. We had by good fortune found the elusive Dotterel. Twenty minutes or more were spent watching from a distance as a bird incubated and then walked away to feed before returning to the nest.

Reluctantly, we had to leave and tramped back across the plateau to the steep descent into Coire an Lochain. We stopped on the lip to watch a young woman ski down the corrie headwall for the second time that day. The immaculate carved turns patterned the length of the narrow corrie snowfield and were visible for a mile or so as we headed for home. Jackie and Mary were not too tired to continue searching and were rewarded by discovering more unusual mountain species Globe Flower *Trollius europaeus*, Dwarf Cudweed *Gnaphalium supinum*, and the much rarer Sheathed Sedge *Carex vaginata* and Interrupted Clubmoss *Lycopodium annotinum* - a suitable climax and conclusion to the day.

Neville Crowther

CULBIN FOREST

16 June

Culbin Forest was planted by the Forestry Commission between 1922 and 1960, one of the aims being to stabilise the sand dunes. It consists mainly of Pines, with a few Birch and other trees, and must have completely changed the ecology of the area. Now, there are many woodland species, including mosses and lichens, some rare specialist plants, and rare birds and insects.

Our walk took us along the Hill 99 Viewpoint Trail, which takes in two ponds as well as the viewpoint on the highest of the old dunes, with splendid views out to sea. It did not take us long to find Creeping Lady's Tresses *Goodyera repens*, an orchid characteristic of northern pinewoods. This orchid is heavily infected with mycorrhizal fungi on which it depends for its survival. It also prefers a damp environment, and there were many mosses round about, including Wavy Flat Moss (White Worm Moss) *Plagiothecium undulatum*, Shaggy or Teddy Bear Moss *Rhytidiadelphus triquetrus* and Tamarisk Moss *Thuidium tamariscinum* to name some of the most distinctive. Other drier areas of sandy heath had large patches of *Cladonia* lichens, mainly *Cladonia portentosa*.

Walking through the woods, we came across several great mounds of pine needles, the nests of Wood Ants *Formica rufa*. We stepped over processions of worker ants going about their business, collecting food and nest material. There were also a number of beetles around, including the jewel-like Green Tiger Beetle *Cicindela*

campestris a fast-moving hunter which is usually found on heaths and dunes, a Longhorn *Rhagium bifasciatum*, a woodland species, and a Rove Beetle *Staphylinus sp.* which is a scavenger.

In the first open, sunny spot we were delighted to see Speckled Wood *Pararge aegeria* and Dingy Skipper *Erynnis tages* butterflies, both uncommon in Scotland, though the Speckled Wood may be extending



Latticed Heath Moth

its range. It's a woodland butterfly, common in southern England but in Scotland confined to the west coast and the Great Glen up to the Moray Firth. It likes dappled shade, and the larvae feed on grasses like the other Browns. The Dingy Skipper is much more fussy, living in small colonies on dry ground, such as dunes and chalk downs. Though widely distributed in England, it is never common, and has very few sites in Scotland. The larvae eat Bird's-foot Trefoil *Lotus corniculatus*, as do those of the Common Blue Butterfly *Polyommatus icarus* and the Six-spot Burnet Moth *Zygaena filipendulae* - and we saw one of the latter resting on the food plant.

Other moths noted included the Common Heath *Ematurga atomaria*, the Latticed Heath *Chiasmia clathrata* and the Bordered White *Bupalus piniaria*, while a Northern Eggar caterpillar *Lasiocampa quercus f. callunae* displayed itself on a post. They all have different requirements; the larvae of the Common Heath and Northern Eggar both feed on heathers and those of the Latticed Heath on clovers and trefoils. The Bordered White by contrast lives among conifers and its larvae (Pine Loopers) can devastate plantations. It's interesting that all these habitats occur at Culbin.

There are wet areas too. By the Dragonfly Pool we watched Four-spotted Chaser Dragonflies *Libellula*



Four-spotted Chaser - *Libellula quadrimaculata*

quadrimaculata and Large Red Damselflies *Pyrhosoma nyuphula*, many of the latter in tandem, laying their eggs. Emergent vegetation included Water Horsetail *Equisetum fluviatile* and the rather similar Mare's-Tail *Hippuris vulgaris*, which, despite appearances, is a flowering plant with tiny flowers in the axils of the leaf whorls.

Between here and the Gravel Pit Ponds, we noted patches of Stag's Horn Clubmoss *Lycopodium clavatum* and

Serrated Wintergreen *Orthilia secunda* whose flowers hang down to one side, and which I once knew as Yavering Bells. Interestingly it was growing round a post marked 'Common Wintergreen *Pyrola minor*' which happily was growing nearby.

At the Gravel Pits we encountered more Four-spotted Chasers and Large Red Damsels, plus Common Blue Damsels *Enallagma cyathigerum* and a single Blue-tailed Damsel *Ischnura elegans*. There were also masses of tadpoles in the shallows and tiny frogs/toads emerging. Water plants included Shore Weed *Littorella uniflora*, Common Spike Rush *Eleocharis palustris* and Bulrush or Reed Mace *Typha latifolia*. The round leaves of Marsh Pennywort *Hydrocotyle vulgaris* and handsome purple spikes of Northern Marsh Orchid *Dactylorhiza purpurella* were found in marshy areas nearby, along with a variety of sedges.

Although it was relatively early for fungi, some had already put in an appearance: Chanterelles *Cantharellus cibarius*, The Blusher *Amanita rubescens* and the Orange Birch Bolete *Leccinum versipelle* which, as the name suggests, is one of the mycorrhizal fungi associated with birch. Two other birch fungi were also present but these were wood-rotters found on dead trees: the Birch Polypore or Razor Strop Fungus *Piptoporus betulinus* and the Hoof Fungus *Fomes fomentarius*. The former, a soft bracket, was indeed used for sharpening cut-throat razors, and also for mounting insect specimens in collections to keep them dry. The latter, a hard bracket with a northern distribution, often looks very like a horse's hoof.

There were not enormous numbers of birds, but Swallows were flying outside the wood, and Chaffinches, Siskins and Wrens were all seen or heard, while some lucky birders recorded both Goldcrest and the rare Crested Tit, found only in a few Scottish Pinewoods. So there was something for everyone, and we all had a lovely day.

Jackie Muscott

LOCHINDORB

16 June

The day ended with a quick trip to Lochindorb in the hope of seeing Red-throated Diver. It was pretty bleak on the moorland round about, but there were some nice plants including Petty Whin *Genista anglica* and Common Butterwort *Pinguicula vulgaris*, while Marsh Marigold *Caltha palustris* was still in flower at the water's edge. It took us a while, but eventually we had a good view of the divers, along with Redshanks, Common Sandpipers, Mallards, a family of Greylag Geese and assorted gulls – and we heard a Cuckoo into the bargain.

Jackie Muscott

LOCH GARTEN AND LOCH MALLACHIE

17 June

Neville Crowther

Another lovely sunny morning! We watched at close range the antics of Siskins and Great Spotted Woodpecker on the feeders and a Red Squirrel nibbling prettily at a nut as we queued to enter the busy Loch Garten Visitor Centre, an experience quite different from the board walk across a bog I remember from 50 years ago! Yes! There was the Osprey nest



on a not very natural-looking tree. As a result of vandalism, the 'tree' is largely man-made now. Occasionally, the head of a young bird could be seen moving in the nest, but the male was clearly visible, watching over his brood. Soon he flew off, no doubt to fish for his young family.

Many people were enjoying the talk given by RSPB staff about the Ospreys or looking at the souvenirs on offer or using the telescopes and binoculars provided for the use of visitors. Outside the Centre, a Wood Mouse, not too concerned about all the visitors, enjoyed the pickings left by the birds, and there was Common Wintergreen *Pyrola minor* in a patch under the Downy Birch trees *Betula pubescens*.



WOOD MOUSE

A short car ride, and we were walking through strangely quiet, mature Pine woods that provided a home for Chickweed Wintergreen *Trientalis europaea*, a single plant of Creeping Lady's Tresses *Goodyera repens* and a white slime mould *Ceratiomyxa fructiculosa*, frostily glittering in the hollows of dead wood when viewed through a hand lens. Suddenly, the tall, slender trees were alive with the contact calls and activity of Great, Coal and Blue Tits, Siskins, Greenfinches and a family of Treecreepers. There were small, dry, spitting sounds, and we all tried desperately to focus our binoculars high above on a family party of Crested Tits.

Farther on, we passed a very large Wood Ants' nest *Formica rufa* surrounded by a fence erected to prevent people doing further damage to it. It is close to the path,

and there are many visitors to the site, but it is sad that such measures are needed to protect such a fine ant hill. I wonder how long it had taken to reach that size?

As we ate out lunch close to the shore of Loch Mallachie, drinking in the soft tones of water and sky and the shifting greens of waterside vegetation and trees, we became aware of Redstarts, only metres away, paying frequent feeding visits to a nest behind a dead tree. Another dead branch over the water provided a launch pad for the territorial flight of a Common Sandpiper. On the far side of the loch we picked out a Heron at odds with some gulls and a group of Greylag Geese paddling serenely, unperturbed by the fracas on the bank. Also seen were Redshank, Curlew and Mallard. A canoe was seen making its way out to the island where the Rangers checked the Goldeneye nest box.

Making our way back to the cars, we saw Teal on Loch Garten and a Buzzard overhead. At closer range we saw tiny red dots nestling among the tree roots near the water's edge. Close inspection revealed a fringe of small 'eyelashes' around the edge. It was the Eyelash fungus *Scutellinia scutellata*.

A few hundred metres along the road from the Loch, hidden from the road but very close to it, is a pond.... a small, enclosed wonderland. When the brazen sun broke through the now overcast sky, the numbers of Four Spotted Chasers *Libellula quadrimaculata*, Large Red Damselflies *Pyrrosoma nymphula* and Common Blue Damselflies *Enallagma cyathigerum* multiplied dramatically, illustrating their dependence on the warmth of the sun for activity. A Queen Wasp was busy stripping wood for her nest from the handrail and a rotten stump. The stripes in the nest structure are due to the differences in the building material gathered by the wasps. A crafty, or foolhardy, long-legged spider stretched its body along the underside of a bare twig only one centimetre thick used repeatedly as a perch by the Four-Spotted Chasers. We watched fascinated as the spider minutely adjusted its position relative to the landing angle of the dragonfly in order to escape detection. We found several empty exuvia attached to the underside of the handrail. This involves a climb of well over a metre for the larvae but apparently they can travel as much as ten metres from the water. It is thought that this dispersal helps to reduce predation of newly emerged and very vulnerable adults. We watched Pondskaters dimpling the surface of the water and a black fly with the larval case still clinging to its body. This one would definitely have difficulty flying! White Sedge *Carex (curta) canescens* was found growing by the edge of the pond.

What an amazing variety of life in this small spot. Of course there was much, much more we did not see!

Neville Crowther

Footnote: A small party ended the day with a trip to Broomhall Bridge to have a look at the River Spey, and were rewarded by a splendid view of Sand Martins nesting in the steep sandy bank, and Oyster Catchers on a shingle island below. Willow Warblers, Chaffinches and Pied Wagtails were also around.

Jackie Muscott

UATH LOCHANS

18 June

Our final destination on the last day of this fantastic Nats' holiday to Speyside, was Uath Lochans. The lochans lie within the Forestry Commission's Inshriach Forest, between the estates of Rothiemurchus and Glen Feshie. The forest contains some small but pristine remnants of the ancient Caledonian Pinewood which covered most of Scotland after the last ice age. There is a path around four small lochans, through trees, heather moorland and bogland.

Our walk started through the Pine, Spruce and Birch woodland, passing cliffs where we saw several species of Fern: Beech, Oak, Lemon-scented, Hard and Gold-scaled Male.

Moving out onto the bog boardwalks, we saw Common Frog and some curious tiny little orange-coloured Mites in the bog pools, paddling furiously with their front legs, leaving the back ones trailing.

Of botanical interest we noted Common Reed *Phragmites australis*, Bog Myrtle *Myrica gale*, White Sedge *Carex (curta) canescens* and Round-leaved Sundew *Drosera rotundifolia*.

The focus of our interest here, however was the Odonata, which were numerous and varied: Northern Emerald *Somatochlora arctica* about five adults either in Heather or hanging up in Pines, uncommon, restricted to north-west Scotland and found in only a few areas in this region; Large Red Damselfly *Pyrrosoma nymphula*, most numerous, many in tandem, egg-laying, still paired; Common Blue Damselfly *Enallagma cyathigerum*, many in tandem; Common Hawker *Aeshna juncea*, five adults just emerging in a small pool covered in Sphagnum; Four-spotted Chaser *Libellula quadrimaculata*, lots of exuviae and perhaps 50 in flight. We also saw some fascinating spiders which I have yet to identify and a Stag-horn Beetle.



Alastair and I both agree, photographing dragons and damsels is a lot easier than photographing birds!

Joanie McNaughton

TROMIE MEADOW

18 June

Before setting off for home, a small group stopped at Tromie Bridge, where a meadow by the river has a wonderful variety of plants. We were fortunate that Jackie Muscott was one of the group, as she identified most of the plants and insects for us. A Bird Cherry tree by the bridge was completely covered by the 'tents' of the Bird Cherry Ermine Moth *Yponomeuta*

evonymella, whose larvae live in these communal shelters which they spin among the shoots of their food plant, often defoliating it completely.

Through the gate, the first treat was the dainty, star-like Chickweed Wintergreen *Trientalis europaea* scattered under the pine trees. Once we were into the open, the ground was dotted with Heath Spotted Orchids *Dactylorhiza maculata* in shades of pink and purple.

We knew that Fragrant Orchids *Gymnadenia conopsea* were to be found here but had to search hard for them, as they were just coming into bloom. Their very long spurs are the giveaway, even when they are still in bud. We had not expected to find Mountain Pansy *Viola lutea*, but there it was, in quantity, and in full bloom.

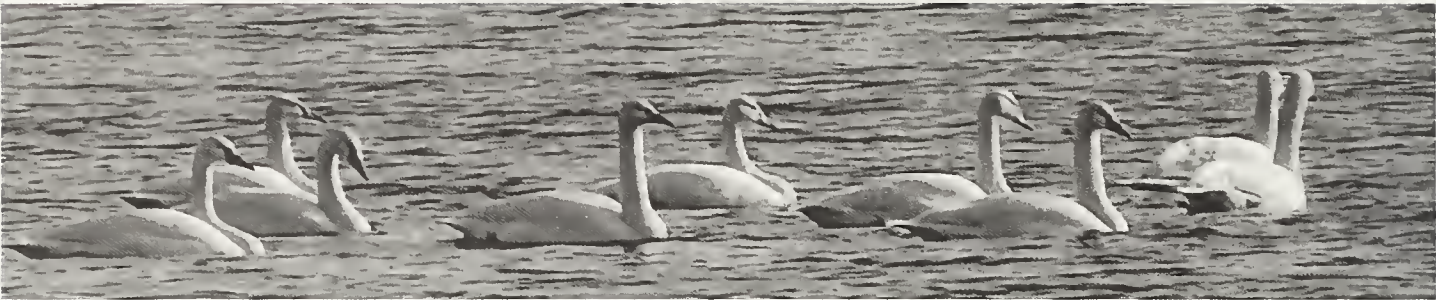
In the wetter areas, were two insectivorous plants, the Common Butterwort *Pinguicula vulgaris*, whose deep purple flowers were at their best, and the Common Sundew *Drosera rotundifolia*, which was not even in bud but whose round, stickily hairy leaves are distinctive.

'Floppy Flacca' from its drooping flower spikes), Flea Sedge *C. pulicaris*, whose seeds when ripe jump off if you touch them, and Bottle Sedge *C. rostrata* whose head looks just like a bottle brush.

There were lots of sedges, including Glaucous Sedge *Carex flacca*, (popularly known as a Plant). Plants were not the only interest, as Small Heath, Green-veined White and Small Pearl-bordered Fritillary Butterflies were spotted, as well as a tiny green Spider *Araniella cucurbitina*, which Helen Slater identified for us. The visit made a fitting end to a happy excursion to the Highlands.

Mary Clarkson

OBSERVATIONS 2010



JANUARY

4th	Baird's Sandpiper, Whitesand	BC
5th-21st	Male Blackcap in my neighbour's garden	MC
14th	Small flock of Goldfinches on Buddleja, Redwing under garden hedge, St Alban's Rd.	MC
17th	First bumblebee of the year flies across Corstorphine Road outside Zoo.	DWA
17th	20 or so Redwings feeding in leaf litter with Blackbirds, Marchmont back green	JM
18th	Firecrest, Gosford Estate	BC
25th	Last garden sighting in 2010 of 2 Collared Doves, Relugas Rd	JMcN

FEBRUARY

3rd	Long-tailed Tits on my bird feeder, and Redwing under garden hedge, St Alban's Rd.	MC
5th	1 Song Thrush, Relugas Rd	JMcN
9th	Stoat in ermine, Cammo	LB
10th	33 Waxwings at Whitehill Gdns, Musselburgh	JMcN
11th	1 Siskin. Relugas Rd	JMcN

21st	A Song Thrush battering a snail on a stone, Astley Ainslie: the first time I've seen this	JM
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MARCH

2nd	2 Nuthatches, gathering mud prior to plastering up their chosen nesthole: a Grey Heron sitting tight on eggs, Gosford Estate	NC
7th	Honey bees active at Binny Plants, Ecclesmachan	DWA
9th	Last record of Wren in 2010.... casualty of the January snow, Relugas Rd..	JMcN
9th	21 Waxwings, Union Canal, Slateford	BC
	All six common species of bumblebee emerge from hibernation, 13 th March-17 th April	DWA
16th	1 Raven flying west to east over Relugas Road	JMcN
23rd	4 Swifts. First sighting this year. Relugas Rd	JMcN

APRIL

6th	Hoopoe, Dunglass	BC
9th	Screaming frog hauled from small garden pond in Downie Grove, Corstorphine.	DWA

15th	Large colony of Rough Horsetail <i>Equisetum hyemale</i> doing well. A pair of Goosanders on the river, Almondell	JM+MC
22nd	2 Antarctic Beech trees <i>Nothofagus antarctica.</i> , Kinneil Estate	JM+LB
24th	First cuckoo bumblebee of year. <i>Bombus sylvestris</i> on Dandelion, Kaimes Road, Corstorphine.	DWA
25th	Wheatears and one Golden Plover, East Cairn Hill	DWA
28th	About 150 spikes of Toothwort <i>Lathraea squamaria</i> under the Yew trees: <i>Arum italicum</i> and Ostrich fern <i>Matteuccia struthiopteris</i> apparently naturalised on the slopes down to the Tweed, Paxton Hall	NC
MAY		
2nd	<i>Mitrophora semilibera</i> fungus by path through Murrayfield golf course	DWA
3rd	On the tiny Avielochan in Strathspey, there were pairs of Red Throated Diver, Slavonian grebe, Goldeneye, Wigeon, Tufted Duck (2) and Common Sandpiper (2), all ready for breeding.	NC
5th	<i>Morchella conica</i> fungus by Paddockholm, Corstorphine	DWA
8th	First Swifts of the year: nesting started in the Doocot, Stenton Church	NC
13th	Broad-billed Sandpiper, Tynninghame	BC
14th	Marchmont: The Swifts have arrived - 10 or so.	JM
16th	A group of botanists were lucky to hear Grasshopper Warbler and see nesting Ravens, Arthur's Seat	JM
22nd	Many Green Hairstreak butterflies on Bells Hill, Corstorphine	DWA
JUNE		
4th	Over 100 Banded Demoiselles <i>Calopteryx splendens</i> flying on a short stretch of the river, Burton-on-Trent	JM
11th	A bouncy trip to Ailsa Craig: many birds of all the expected species, plus Twite and Wheatear: the surprises were piles of part-made and discarded curling stones and several Slow Worms living under corrugated iron sheets	NC
17th	A rare fungus <i>Exobasidium splendidum</i> on leaves of Cowberry <i>Vaccinium vitis-idaea</i> at Loch Mallachie, seen again on 28 July (with the Nats), identified by Prof Bruce Ing	MC
20th	Two new West Lothian sites for Prickly Sedge <i>Carex muricata</i> ssp <i>pairae</i> (<i>lamprocarpa</i>), Hopetoun	JM
21st	Blackbird singing at 10.30pm and again at 3.30am	MR
24th	Pale Butterwort <i>Pinguicula lusitanica</i> in gravel by the path to Sgurr Mhic, Shiel Bridge. The orange fungus Bog Beacon <i>Mitrula paludosa</i> in a muddy ditch nearby 2 spikes of Small White Orchid <i>Pseudorchis albida</i> and 20 each of Lesser	MC
25th	Butterfly Orchid <i>Platanthera bifolia</i> and Fragrant Orchid <i>Gymnadenia conopsea</i> agg. at the east end of Dubh Lochain, Glen Arnisdale	MC
JULY		
2nd	Over 100 flowering spikes of Broad-leaved Helleborine <i>Epipactis helleborine</i> on a verge Deans Industrial Estate, Livingston	JM

5th	20 Swifts was the maximum seen over Relugas Rd	JMcN
7th	Three rare species under the Pines: Creeping Lady's Tresses <i>Goodyera repens</i> , St.Olaf's Candlestick <i>Moneses uniflora</i> and Lesser Twayblade <i>Listera cordata</i> , Balblair Wood, Loch Fleet NNR	NC
10th	Violet Anther Smut <i>Microbotryum dianthorum</i> (formerly grouped under <i>Ustilago violacea</i>) on Maiden Pink <i>Dianthus deltoides</i> at St Cyrus (an uncommon fungus on an uncommon plant)	MC
12th	Tortoiseshell butterfly in garden	MR
12th	Greenshank at Musselburgh scrapes this pm	TD
18th	Successful breeding of Little Ringed Plover: 4 nestlings seen to fledge and fly....the culmination of more than a month of intermittent observation, Midlothian	NC
20th	Some 15 <i>Bombus monticola</i> , many <i>B lucorum</i> , and, at an altitude of 1,800 feet, 4 <i>B sylvestris</i> bumblebees, Dundreich Hill, Moorfoots	DWA
26th	Around 700 Field Gentian <i>Gentianella campestris</i> , Hound Point, Dalmeny Estate	DWA
AUGUST		
2nd	8 Black Spleenwort <i>Asplenium adiantum-nigrum</i> on north face of wall of Corstorphine Road, Balgreen	DWA
9th	Last record of Swifts at Marchmont: twice as many as on arrival in May	JM
9th	For 20 minutes or so, 10 Buzzards circling together over Lasswade.	TD
14th	<i>Bombus monticola</i> on willowherb outside Glenholm Wildlife Centre, Broughton	DWA
15th	Number of House Sparrows on feeders peaked at 20, Relugas Road	JMcN
21st	<i>Spathularia flavida</i> fungi plus two <i>Bombus campestris</i> bumblebees, Harehope Forest near Eddleston	DWA
26th	2 Kingfishers, Bavelaw Marsh, Threipmuir Reservoir	DWA
28th	Semipalmated Sandpiper, Tynninghame	BC
SEPTEMBER		
2nd	A rare hybrid Small-reed <i>Calamagrostis x gracilescens</i> by a track and nearby a colony of about 75 flowering spikes of <i>Epipactis helleborine</i> , near Armadale	JM
2nd	5 ladybird species, including Hieroglyphic and Eyed, Threipmuir Reservoir	DWA
3rd	Peacock butterfly in garden, Gardiner Road	MR
6th	Rare parasitic fungus <i>Hypomyces spadiceus</i> on the gills of Milkcap <i>Lactarius pubescens</i> at Portmoak Moss. It changes the Milkcap's appearance. Identified by Prof Roy Watling	MC
9th	Bad news: a patch of Pirri-pirri-bur <i>Acaena novae-zelandiae</i> below the southern summit of Cairnpapple Hill	JM
15th	Geese migrating south during the day	MR
17th	Geese flying south 10.15am: their call could have been Brent's	MR
18th	Painted Lady butterfly in garden, Gardiner Road	MR

18th	Comma and Peacock butterflies in double figures, sunny spot, Saltoun Wood	MC+JM
30th	Marsh Warbler & 2 Yellow-browed Warblers, Barns Ness	BC
OCTOBER		
3rd	3 Ring Ouzels, East Cairn Hill, Pentlands	DWA
12th	Scarlet Caterpillarclub <i>Cordyceps militaris</i> at Hiltly near Beecraigs - a bright red fungus which parasitizes and feeds on the larvae of butterflies and moths	MC
18th	A Great Spotted Woodpecker feeding on nuts, Marchmont back green. It did not return	JM
30th	Last bumblebee of year, New Hopetoun Gardens, West Lothian	DWA
NOVEMBER		
3rd	20 Waxwings in trees adjacent to 14 Relugas Road	JMcN
5th	Geese passing overhead at 10.30pm sounded like Greylags, Gardiner Road	MR
7th	In a flock of 350 Eiders, my first King Eider, a male to boot, Burghead	NC
8th	In late afternoon, staking out the Hen Harrier roost, we were lucky enough to see two ringtails and a 'white ghost', Insh Marshes, Strathspey	NC
13th	Splendid close view of a pair of Crossbills on bare trees beside the conifers, Deepsyke Forest	JM+VK
15th	At 3pm, in brilliant sun, a male Hen Harrier low over stubble fields disturbing flocks of Woodpigeons, Starlings, Rooks and Jackdaws, between Mount Lothian and Cockmuir.	TD
17th	A group of about 8 Fieldfares on the apple tree in the garden, Gardiner Road	MR
17th	Small flock of Waxwings on the Whitebeam, Strachan Road	MR
17th	Small flock of Waxwings flitting around in garden, East Trinity Road	LB
19th	About 100 waxwings on large Birch	LB
19th	35 Waxwings at 14 Relugas Road	JMcN
21st	30 Waxwings in garden, East Trinity Road	LB
23rd	2pm a male Merlin fast and low over the turnip field, scattering the finch flock at Ankriellaw Farm, Mountlothian. 3pm the male Hen Harrier appeared over the turnip field, continued quartering across the grassland, eventually disappeared north east.	TD
26th	After a cold week, snow fell and continued to fall daily for the next week.	MR
26th	Grey Phalarope, Dunbar	BC
30th	Overnight temperature in Edinburgh reported to be -13.2°C	MR
DECEMBER		
1st	Throughout the cold December weather, a small flock of Bramblings feeding on nuts, Marchmont back green	JM
1st	46 Waxwings at Relugas Road	JMcN
2nd	15 Fieldfares and 1 Redwing in Relugas Road garden.	JMcN

3 Greenfinches and 3 Goldfinches on feeders - the first garden sighting of either for 6 months, although often heard singing in the area throughout summer.

4th	3 Mute Swans flying east at about noon, Gardiner Road	MR
5th	Waxwings reported in Gardiner Road	MR
9th	50-60 Waxwings on tree by bus-stop in Clark Road	LB
11th	1 partially leucistic Blackbird with three white flashes across primary feathers. JMcN Relugas Road	
20th	A Woodcock, sitting in the snow in the middle of a lane, Lasswade.	TD
30th	Green-winged Teal, Aberlady	BC

OBSERVERS

BC= Bill Clunie	MC=Mary Clarkson
DWA=David Adamson	MR=Mary Robertson
LB=Lyn Blades	VK=Vladimir Kritsov
JM=Jackie Muscott	NC=Neville Crowther
JMcN=Joanie McNaughton	TD=Tom Delaney

SNIPPETS FROM JACKIE MUSCOTT

Mobbing Behaviour

I see Crows attacking Buzzards rather frequently but last year saw two other interesting examples of mobbing behaviour. The first involved a Buzzard again. It flew low over a West Lothian farm, and almost immediately there was an avian outcry, as half-a-dozen Pied Wagtails, which had been feeding there, rose up and attacked it. Three days later I was walking up Riccarton Hill when I became aware of a mob of noisy Crows (or Rooks) ahead of me, which came to land in a circle round a passing Fox. The Fox stopped and seemed a bit taken-aback but presently went on its way, whereupon the Crows flew up and repeated the process a bit further on. I don't know how long this continued as both Fox and Crows then passed out of sight.

Magpies

On 6th February last year I first became aware of a Magpie building its nest in a tree overhanging Kilgraston Road. It was an extremely inefficient nest-builder: by the time it had finished there were at least as many sticks on the road as there were in the nest. Later in the year I saw a young Magpie in the street (possibly one of its offspring). It had no tail and did not seem to realise it was a Magpie as it followed a pair of feral pigeons around, pecking where they pecked. It seemed to have adopted them.

An Overactive Starling

In mid-February I became aware of a Starling on a Marchmont gable. The bird appeared quite demented, singing noisily (or at least making noises noisily), bouncing up and down and madly flapping its wings. I quite expected it to turn summersaults. I suppose it was trying to attract a mate and wonder if it was the same bird that, by the end of May, was feeding young in the former Usher Institute. It was flying in and out of a hole in one of the Institute's air vents.

Ash Trees in West Lothian

I am now aware of four different species of Ash in West Lothian. The common Ash *Fraxinus excelsior* is, of course, widespread. Hopetoun, which has many interesting tree species, is home to the narrow-leaved Ash *Fraxinus angustifolia*, which has also been planted near Oatridge College. Newliston Estate has a specimen of Manna Ash *Fraxinus ornus* (the one with the showy flowers) which I've also seen once or twice in Edinburgh, most notably in George Square Gardens. The last Ash was discovered in a park in Linlithgow last summer: Broad-leaved or Oregon Ash *Fraxinus latifolia*. The last two species have brown rather than black buds, but all the species have typical pinnate leaves and 'keys'.

Blackford Pond

Over the years I've seen some interesting birds on Blackford Pond during the winter months. In January last year there was a pair of Goosanders during a break from freezing weather. This was not the first time I had seen the species – once in double figures. Pochards appear from time to time, as do Great Crested Grebes, and those who braved the weather for Vladimir's December excursion were rewarded with a Shoveller.

The more usual occupants are Mallards, Tufties, Swans, Coots, Moorhens and more recently Canada Geese, with Black-headed Gulls in winter and Lesser Black-backs in summer. A Heron can often be seen fishing from the island: once I saw it catch a frog - it had a lot of trouble getting it the right way round to swallow.

Most of the birds have bred in the past, as have Little Grebes, but it's getting more difficult for them to rear young in the presence of Black-backed Gulls and Rats. The Swans are big enough to defend their eggs and young. They had cygnets every year until 2008, when the female sat on a nest for some time but without result. There were no cygnets in 2009 either. In the winter I was informed that one of the Swans was sick, and soon there was only one. However, by the end of November 2010, there were two again, one immature. A month later, the pond was frozen solid and covered with snow: the only birds were a few disconsolate Blackheads, sharing the ice with a small snowman. Let's see what the thaw may bring.

WINTER LECTURE PROGRAMME

Neville Crowther

20 January

Plant collectors in Gaoligong

David Long, RBGE

The Gaoligong mountains in northwestern Yunnan are recognised as one of the most botanically diverse areas on the planet. David Long described with evocative pictures how he participated in six international expeditions to chronicle the plant species of this remote, sparsely populated and very mountainous region on the Chinese border with Burma. He described the logistical difficulties for their Chinese hosts in transporting equipment and food to high altitudes, over rough terrain: sampling, preserving and recording of specimens: problems with health and climate. He outlined the struggle with Beijing by Chinese scientists to conserve the area and the sad paradox of the continuing felling and shipment of timber from a similar area across the Burmese border to meet the needs of the Chinese economy. The abiding memory of the evening, however, was of beautiful trees and exotic flowers in a towering mountainscape. There were many in the audience who would volunteer as porters for his next expedition

17 February

Ecuador - Andes, Amazon and Galapagos

Neville Crowther

This talk described a trip taken by 14 friends united by an interest in birds. It was 12 months in the planning, and the goal was to visit all the major biomes in the country.

Quito airport lies at 10,000 feet, and in bad weather they had an exciting landing.... on the third attempt. Their first week was spent above this height, and the weather was cool to cold and mostly wet. At 15,000 feet, despite being on the Equator, the vegetation on the high paramo resembled that of upland Scotland with snow showers. The list of bird species began to grow, ultimately reaching about 370, as birds of families unfamiliar to most of the party gradually became recognizable. The learning curve was eased because several of the party had some prior experience of the continent. There were visits to both the western and eastern cordilleras and to lodges on the Amazon slope. Flying into Amazonia and landing at Coca on the Napa river, followed by a 25-mile canoe trip and a 5-day stay in a jungle lodge was one of the highlights of the trip.

After returning to Quito for a few hours, they flew to the Galapagos and joined a small motor cruiser which was to be the group's home and transport for the next two weeks. During that time they visited 17 islands, for many of which special permits available only to small parties were needed. Needless to say, the group recorded sightings of almost every species it was possible to see.

Describing all the highlights of such a trip would be an impossible task: cameras, notebooks and cranial memory-banks were all jammed to capacity; Hoatzin, Tapir, Motmots, Tyrannulets, Agoutis, Boobies, Solitaires, Cock Of The Rock, Antpittas, Cayman, Sylphs, *Heliconia*, Pufflegs, Marmosets, Iguanas, and Sally Lightfoots all became much more than answers in a pub-quiz.

24 March

Eye of Newt, Leg of Toad

Peter Leach, LARG

Peter began by outlining how, in folklore, across much of the world, reptiles and amphibians are associated with evil and danger. He highlighted how their biological interest as descendants of the first terrestrial vertebrates has been largely forgotten as the world-wide extinction of many species has progressed.



Because of our northern latitude and isolation, we have very few species of herptile (reptiles and amphibians) in Britain compared to adjacent Europe. None of the Scottish reptiles lays eggs, like most do elsewhere in the world: the viviparous alternative is an evolutionary response to our cold environment.

Detailed images and descriptions of all our native British species (five reptiles and six amphibians) were given, as were details of their distribution and habitats. We were treated to the recorded calls of all our amphibians, and, at the end of the talk, our memory of the differences was tested. Time was given to the metamorphosis of our amphibians and to the conservation difficulties faced by Natterjack Toad and Great Crested Newt. Reptiles were dealt with more quickly, as Scotland has only three species, all of which have widespread distribution and none of

which is threatened with immediate extinction.

Introductions of alien species were dealt with sympathetically, as few survive well and offer no threat to our native species.

21 April

Members' Night

A well attended meeting was treated to four excellent talks and an array of interesting displays.

Frances and Munro Dunn showed images of west Greenland taken on a cruise several years ago. Sailing northwards between Baffin Island and Greenland they almost reached 80 degrees north, before being stopped by pack ice. There were fascinating glimpses into the life of the Inuit at their tiny settlements: children with eyes as bright as buttons: chained strings of sleeping huskies: stunning icebergs and glaciers and brooding granite mountains. The monochrome of this cold desert emphasised the rigour of the life for the Greenlanders. Walks that they took ashore were inevitably short given the roughness of the terrain, the danger from polar bears and the sudden changes in weather. They apologised that the only picture of a plant that they possessed was a tiny Willow shrub. We were quite willing to accept that it was the only plant that they came across.

Peter Tothill gave an illustrated lecture on the life of Francis Masson (1741 - 1805), a Scottish botanist who was Kew Gardens' first plant hunter. Masson was born in Aberdeen and in the 1760 went to work at Kew. He was the first plant collector to be sent from Kew by the newly-appointed director Sir Joseph Banks, and sailed with James Cook on HMS Resolution to South Africa, where he landed in October 1772. He stayed until 1775 and sent back to England over 500 plant species. In 1776 he went to Madeira, the Canary Islands, the Azores and the Antilles. In 1783 he collected plants in Portugal and in January 1786 returned to South Africa, remaining until March 1795. Two years later he set sail for North America and over the next few years travelled widely collecting plants and seeds. He died in Montreal in 1805. Masson discovered in excess of 1700 new species including *Strelitzia reginae* Bird of Paradise Flower, *Protea cynaroides* King Protea, *Kniphofia rooperi* Red Hot Poker & *Trillium grandiflorum*. Peter illustrated the talk with beautiful images of many of these plants, especially ones from the Fynbos Heathland of the Cape.

John Watson devised a photographic quiz entitled "Mostly Gold" where shades of yellow were the common features of the species shown. It turned out to be quite difficult to remember the names, even of common things, though many of us had been on the excursions when John had taken the photographs. It was all very enjoyable including the giggles of embarrassment when the answers were read out. David Adamson was the winner.

David Adamson, fresh from his triumph in the quiz, paraded his support for Bumblebee Conservation. He had acquired this enthusiasm during 'Nats' outings in the Pentlands in recent years where the rare Blaeberry Bumblebee was found in some numbers. The talk was illustrated by a series of pictures of common species including the cuckoo bees that have evolved to parasitise the nests of similar bumblebees. Some of these bees are in decline, as are honey bees, and he ended with a plea to support them by planting flowers in our gardens which they use for nectar and pollen and urged us to join the conservation society, based in Stirling.

Eunice Smith showed a collection of large bracket fungi. **Jean Pryde** exhibited a crystallography collection of minerals and semi-precious gemstones; agates and amygdulites. **David Adamson** provided further encouragement to support

bumblebees with a table of lapel badges, ID sheets, pictures, leaflets and application forms. **Neville Crowther** using charts and display boards, described the progress of the BTO/SOC Bird Atlas (now dealing with a third breeding season). We were able to re-live A moth-trapping exercise at Woodhall Dean the previous Saturday was with a selection of images of the 160 plus moths caught that night.

22 September

The Scottish Wildcat

Steve Piper

It was an enjoyable, informative and optimistic talk. Any visual presentation about Wildcats would tend to be completely new to most of the audience, as would a live sighting. The close-up movie clips and the images of skins were particularly novel and instructive for key identification pointers.

What was utterly unexpected, bold and adventurous was the Scottish Wildcat Association's project to solve the two survival problems the Wildcat suffers from: low population and dilution of the gene pool. The project involves working lines of traps in carefully planned areas in the northwest Highlands, beginning in Ardnamurchan. Trapped animals that prove to be feral cats are neutered and released. Ultimately, competition with feral cats and gene-pool dilution may be eliminated. We all hope that SWA manage to maintain the necessary financial support and persuade enough volunteers to carry the project to fruition.

27 October

Plate Tectonics

Prof. Stuart Monro

Stuart Monro is Scientific Director at Our Dynamic Earth and a Visiting Professor at the University of Edinburgh. He received the OBE in 2007 for services to Science. Leafing through his voluminous CV, which covers a lengthy career in the British Geological Survey and latterly in prestigious senior posts in academia, it is evident that the dissemination of earth sciences to a wider audience has been a thread that runs throughout his life. We were not to be denied a demonstration of his skills as a communicator.

He began by outlining the role that Scots have played in the growth of geology as a science. James Hutton's discovery of the unconformity at Siccar Point in Berwickshire was identified as a seminal moment in breaking the long-held view that the age of geological events was measured in thousands of years not billions.

With the aid of animated film, beginning with present-day continents, we were taken in steps back through time to the global locations where rocks originated. Wegener's theory of continental drift, postulated a century ago, had to wait until the 1960s for supporting proof. The site of origin for all present-day igneous rocks could then be identified by examining the orientation of the crystals within, which had aligned themselves with the magnetic lines of force at the point of solidification. In this way, we were able to see Scotland's previous locations and its relationship to other land masses. The footage also revealed the two ancient supercontinents of Gondwanaland and Laurasia, and the single great land mass of Pangea which broke up to form the modern continents.

His final piece of film confirmed that humour is an important ingredient of communication: a galloping Springbok collided with the lamp-post of the savannah, a thorn tree. The first questioner from the floor asked for a repeat of the Springbok film. Guess who?

24 November

The Seal Rescue Centre

Colin Seddon, SSPCA

The SSPCA Seal Unit is a large part of the Middlebank Animal Hospital in Fife and is devoted to the care, rehabilitation and release of seal pups. Colin Seddon is the manager there, and during November will begin caring for upwards of 50 Grey Seal pups born in autumn. In the spring, the emphasis changes to Common Seals which pup in June, and the expectation is that about 30 will be rescued annually. The death rate of pups in their first year is about 50%, due to a number of causes: storms, which separate pups from their mothers; infections especially by 'cod worm' gut parasites; and injuries arising from wave action.

The crucial period for a pup's survival is its first five weeks, after which, having gained weight rapidly from feeds of fat-rich milk every six hours, it will be able to survive at sea. Many pups are assumed by the public, incorrectly, to be have been deserted. Dehydration and starvation are the most common problems when pups are brought into the rescue pens. They are hand fed initially, but soon cut-up then whole fish such as Mackerel and Herring are given, by which time the pups will have been transferred to outdoor pools. They are tagged on the hind flippers before release, which often takes place in small groups. As with bird-ringing, a small number of returns gives some information about the age and movements of the species. Recently, radio transmitters have been used to give constant data on location, distance travelled and depth dived. At £3000 each, however, with nil recovery, the information obtained is very expensive.

Christmas Party

Our traditional Christmas Party was scheduled for 8 December. Owing to the exceptionally bad weather at the end of November and heavy snowfall in the whole of the surrounding region, it was considered that travelling for at least the next week would continue to be unduly hazardous. It was decided, therefore, a few days ahead of time, to cancel the event. The message was conveyed to as many members as possible by website and newsgroup messages and by good old-fashioned telephone. In view of the dangerous road conditions that continued to prevail on the due date, the decision, though regretted, was well justified.

The Council immediately contacted members and guests. On the night, Malcolm Lavery unselfishly stood guard outside the hall in freezing conditions to intercept anyone who might turn up, unawares: fortunately, no one did. Janet Watson had already bought supplies, but was able to use the food and some wine herself, and various members of the Society eventually bought the remaining wine at cost.

Thanks are due all round

ACKNOWLEDGEMENTS

We are grateful to the authors of all the articles, excursion reports and observations contained in this issue: without them there could be no *Journal*.

We are indebted once again to Jackie Muscott for the many sketches drawings she has produced for this issue and others of hers re-used from previous years.

The drawings on the first page, at the head of the Excursions section, and others interspersed throughout these pages will again be recognised as the work of the late Eric Perry. We thank Eileen Perry for her kind permission to continue to use them.

This year, the photographs used in the centre-spread are by a number of members: many are named in the captions. Others have been contributed by Ian McCallum, and Joanie Mc Naughton. The origin of some is unclear, and we apologise to any photographer not acknowledged here.

We should like to thank all those who have provided much appreciated help with the production of this issue. Particular thanks are paid to Sandra Stewart, Lyn Blades, Jackie Muscott, and Neville Crowther.

Thanks are also due once again to Sam Burdon for her help with IT issues.



THE SOCIETY'S EQUIPMENT

In addition to books held in the Library, the Society has the following items which can be borrowed by members for their private use.

Members are responsible for the care of equipment on loan

Telescope Bushnell Spacemaster 20-40x, in carrying case and with window-mount for in-car use.

Apply to Grace Jamieson: 0131 453 3434

Microscopes, high- and low- power.

Apply to Mary Clarkson: 0131 667 3815 and to Elizabeth Farquharson: 0131 447 1994

Small-mammal traps (24 available)

Apply to Elizabeth Farquharson: 0131 447 1994

Slide Projector

Apply to Elizabeth Farquharson: 0131 447 1994

Slide collection left to the Society by Janet Raeburn. The subjects are mostly botanical but also include birds, mammals, butterflies and Scottish scenery..

BAWSINCH

The Bawsinch Nature Reserve at Duddingston is managed by SWT, who allow the Society to hold a key for members.

Apply to Joanie McNaughton: 0131 477 0270

JOURNAL

Members who wish to submit material for the *Journal* should e-mail the editor, Tom Delaney, at t.delaney2@btinternet.com. Members without internet access can send an e-mail from any Library: there is usually a Librarian on hand to help.

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